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# THE WEALTH AND PROGRESS OF NEW SOUTH WALES

1886-87.

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# WEALTH AND PROGRESS

OF

NEW SOUTH WALES.

# THE

# WEALTH AND PROGRESS

# OF

# NEW SOUTH WALES

# 1886-87.

BY

T. A. COGHLAN, A.M., Inst. C.E.,
GOVERNMENT STATISTICIAN.

WITH MAP AND TABLES.

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# PREFACE.

THE following pages, which are designed to trace the progress of the Colony during the first century of its history, show that New South Wales maintains its position as the leading province of the Australasian Group.

Statistics reaching back to the foundation of the Colony are, unfortunately, not procurable. The earlier years have, therefore, been dealt with in the form of an historical sketch; but the period which has elapsed since the separation of Queensland has been treated statistically. The progress and position of all the colonies have occasionally been compared, but owing to the late period at which information relating to some of the colonies is published, it has been found impossible to make comparisons in many cases in which they might seem desirable, or to invest them with the interest which would attach to more recent figures. Tables showing the points of chief interest in connection with the various colonies are, however, given in the Appendix, and the ground covered by these figures is sufficient to give a just view of the position and relative importance of each colony.

The limits at the disposal of the author have not admitted of all matters, even when of unquestionable interest, being treated in detail. For information not contained in these pages, the reader should consult the Statistical Register of the Colony, or the Handbook of New South Wales Statistics issued each year.

Some defects of arrangement, incidental to a first publication, will probably be found herein. For these, indulgence is craved, as well as for any minor errors which have remained undiscovered in the multiplicity of details of which the work consists.

*Statistician's Office,*
*Sydney,* 1*st November*, 1887.

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# PART I.

## Historical Sketch of the Colony prior to Responsible Government.

Early Discoverers.

THE Columbus of Australia was undoubtedly Don Pedro Fernandez de Quiros, a Spanish nobleman and navigator, who sailed in 1606 from Lima, in Peru, for the express purpose of discovering a southern continent, in the existence of which he had repeatedly expressed his confident belief. Like Columbus, he failed to sight the main land, but having succeeded in reaching a coast which stretched for a great distance north and south, he mistook it for the continent in search of which he had come, and, without troubling to examine further, named the land Australia del Espiritu Santo. This was one of the islands of the New Hebrides group, and is still called Espiritu Santo. In company with De Quiros was Luiz Vaez de Torres, in command of another ship, appropriately named the "Almirante," who, after parting company with De Quiros, discovered that Espiritu Santo was only an island. Torres, being afterwards forced to bear up for the Phillipines for the purpose of refitting, discovered and sailed through the strait which now bears his name, and even sighted Cape York, which he supposed to be only another of the many small islands abounding in the neighbourhood.

Dutch explorers.

About the same time the Dutch sent out an expedition from Bantam, in a small vessel called the "Duyfhen," which discovered the Gulf of Carpentaria. Some of the crew landed, and are believed to have been the first Europeans who trod the shore of Australia. Being attacked by the natives they were forced to abandon any attempt to explore the country; and after naming the place Cape Keerweer, or Turn-again, they departed, apparently in total ignorance of the fact that they had landed on the northern shore of a great continent. Other Dutch adventurers discovered, during the following twenty years, various parts of the coast. Dirk Hartog landed on the island now called by his name, in 1616. Jan Carstens, in command of the yachts "Pera" and "Arnheim," sailed along the northern shores, for a long time called Arnheim's land, in 1623. About the same time another Dutchman, Captain Edel, explored the greater part of the western coast. In 1622 a Dutch vessel, the "Leeuwin," coasted along the south-west shore, from the cape which has been named after her, to King George's Sound, and in 1627 Peter Nuyts discovered the Great Australian Bight. Other Dutch explorers were Pelsart, who was shipwrecked on Houtman's Abrolhos in 1629, and Tasman, the discoverer of Tasmania and New Zealand.

Dampier's expedition.

Dampier, an English buccaneer and discoverer, also explored the west coast, from Shark Bay to Dampier's Archipelago, and the north-west coast, as far as Roebuck Bay, a distance of about nine hundred miles. This was in 1699, and he appears to have landed in several places. On his return he published an account of what he had seen. He described the country as sterile in the extreme, with scarcely any animals, the only one of any importance being somewhat like a racoon, using only its hind legs, and, instead of walking, advancing by great bounds, or leaps, of twelve or fifteen feet at a time. This is the first notice of the kangaroo which has reached us. Dampier also describes the aboriginal inhabitants, in terms the reverse of favourable, which, however, apply equally to the natives of New South Wales as first seen by Captain Cook. The mention of this last distinguished man brings the narrative to the period when the real history of New South Wales, and therewith that of Australia, begins.

Voyage of Captain Cook

The great voyage of James Cook, in 1769-70, was primarily undertaken for the purpose of observing the transit of Venus, but his instructions also mention among its objects the making of further geographical discoveries. The ship in which Cook sailed was a small vessel of 320 tons, carrying twenty-two guns. She had originally been built for service as a collier, and was selected for the use of the expedition on account of her unusually strong construction. This craft had been chosen by Cook himself, and was renamed the "Endeavour," in allusion to the great work which her commander was setting out to achieve. Mr. Green was to conduct the astronomical observations, and Sir Joseph Banks and Dr. Solander were appointed botanists to the expedition. After successfully observing the Transit from the island of Tahiti, or Otaheite, as Cook wrote it, the "Endeavour's" head was turned south, and then north-west, beating about the Pacific in search of the eastern coast of the great continent, whose western shores had been so long known to the Dutch. After circumnavigating, and minutely surveying New Zealand, Cook stood due west, and in three weeks sighted the cliffs of New Holland, as Australia was then called.

Cook anchors in Botany Bay.

The first important point observed was Cape Howe, which was so named by Cook. After passing and naming Mount Dromedary, the Pigeon House, Point Upright, and Cape St. George, on the 28th April, 1770, Botany Bay was discovered, which, as it appeared to offer a suitable anchorage, the "Endeavour" entered, and the anchor was dropped. The ship brought-to opposite a group of natives, who were cooking over a fire. Unacquainted as were Cook and his crew with the character of the Australian aborigines, they were not a little astonished that these natives took no notice whatever of them or their proceedings. Even the splash of the anchor in the water and the noise of the cable running out through the hawse-hole neither caused them to raise their heads, nor in any way disturbed them at their occupation. But as the captain of the "Endeavour" ordered out the pinnace and prepared to land, the natives threw off their nonchalance; for on the boat approaching the shore two men, each armed with a bundle of spears, presented themselves on a projecting rock and made threatening signs to the strangers. It is interesting to note that the ingenious "wommera," or throwing stick, which is peculiar to Australia, was first observed on this occasion. As these men were evidently determined to oppose any attempt at landing, a musket was discharged between them, so as to startle them by the noise, but it produced no effect beyond causing one of them to drop his bundle of spears, of which, however, he immediately re-possessed himself, and the two natives still preserved the same menacing attitude. One of them at last cast a stone towards the boat, which earned him a charge of small shot in the leg. Nothing daunted, however, the two men ran back into the bush and presently returned furnished with shields made of bark, with which to protect themselves from the firearms of the crew! The intrepidity of these men is certainly worthy of passing notice. Unlike the American Indians, who supposed Columbus and his crew to be supernatural beings, and their ships in some way endowed with life, and who were thrown into convulsions of terror by the first discharge of firearms which they witnessed, these Australians were neither excited to wonder by the ship, nor were they overawed by the superior number or unknown weapons of the strangers. Cook examined the bay in the pinnace, and several times landed; but by no endeavour could he induce the natives to hold any friendly communication with him. The well-known circumstance of the number of new plants obtained, from which Botany Bay derives its name, should not be passed over. Before quitting the bay the ceremony was performed of hoisting the Union Jack, first on the south shore and then near the north head, thus taking formal possession of the territory for the British Crown.

**Discovery of Port Jackson.**

After leaving Botany Bay Cook sailed northward. He saw and named Port Jackson, but, for some unexplained reason, forbore to enter the finest harbour in Australia. Broken Bay was also seen, but the vessel did not come to an anchor till Moreton Bay was reached. Still sailing northward, and taking notes as he proceeded, for a rough chart of the coast, Cook passed over 1,300 miles without meeting with anything worth chronicling, till suddenly one night at 11 o'clock the water was found to shoal, without any sign of breakers or land. While Cook was speculating on the cause of this phenomenon, and was in the act of ordering out the boats to take soundings, the "Endeavour" struck heavily, and fell over so much that the guns, spare cables, and other heavy gear were at once thrown overboard to lighten the ship. As day broke attempts were made to float the vessel off with the morning tide, but they were unsuccessful. The water was rising so rapidly in the hold that with four pumps constantly going the crew could hardly keep it in check. At length one of the midshipmen suggested the device of "fothering," which he had seen practised in the West Indies. This consists in passing a sail, attached to cords, under the vessel's keel, in such a manner that the suction of the leak may draw the canvas into the aperture, and thus partially stop the vent. This was practised with such success that the vessel was floated off with the evening tide. The land was soon after made, near the mouth of a small river, which Cook called after the ship, the "Endeavour River." A headland close by he named Cape Tribulation. The ship was steered into the river, and there careened and thoroughly repaired. Cook afterwards completed the survey of the east coast, and returned by way of Torres Straits and the Indian Ocean.

Return of the "Endeavour."

The favourable reports brought to England by the "Endeavour" on her return, and the graphic account of his voyage published by Cook, together with the fact that Great Britain had just lost her North American Colonies, by their successful rebellion, turned all eyes to Australia, or New Holland, as it continued to be called. The difficulty of disposing of their criminal population was only one of the causes which determined the Government of the day to found the Colony of New South Wales; for it will become evident, as the narrative proceeds, that all concerned felt they were engaged in founding a new home in the Southern Hemisphere for the British people, and that visions of even greater progress than has yet been attained filled the minds, not only of Viscount Sydney and Governor Phillip, but also of many reflecting persons in the Colony itself. The truth of this view is amply demonstrated by the testimony of several contemporary writers, but it is nowhere more strongly emphasized than in the lines entitled the "Visit of Hope to Sydney Cove," the author of which was Darwin, whose "Botanic Garden" is well known. The lines have been often quoted, but they contain such a distinct prophecy of the greatness the Colony has reached in this its Centennial year that they may be appropriately introduced:

Darwin's prophetic lines.

Where Sydney Cove her lucid bosom swells,
Courts her young navies and the storm repels;
High on a rock amid the troubled air
Hope stood sublime and waved her golden hair,
Calmed with her rosy smile the tossing deep,
And with sweet accents charmed the winds to sleep;
To each wild plain she stretched her snowy hand,
High waving wood, and sea-encircled strand.
'Hear me,' she cried, 'ye rising realms! Record
'Time's opening scene and Truth's unerring word.
'*There* shall broad streets their stately walls extend,
'The circus widen and the crescent bend;
'*There*, ray'd from cities o'er the cultured land,
'Shall bright canals, and solid roads expand,
'*There* the proud arch, Colossus-like, bestride
'Yon glittering stream, and bound the chafing tide;
'Embellished villas crown the landscape scene,
'Farms wave with gold and orchards blush between.
'*There* shall tall spires, and dome-capped towers ascend,
'And piers and quays their massy structure blend;
'While with each breeze approaching vessels glide,
'And northern treasures dance on every tide.'
Then ceased the nymph—tumultuous echoes roar—
And joy's loud voice was heard from shore to shore—
Her graceful steps descending pressed the plain,
And Peace and Art and Labour joined her train.

Such words are hardly those that would be inspired by the prospect of the "big gaol growing still bigger," which some foreign writers assert was all the Colony was ever expected to become. On the contrary they mark the prescience of those who, one hundred years ago, saw clearly what a great enterprise was being initiated by the departure of the first fleet under Captain Arthur Phillip.

Viscount Sydney determines to found the Colony.

It was in the early part of 1787 that Viscount Sydney, Secretary of State for the Colonies, determined to plant a colony in New South Wales, and by May of that year the "First Fleet" had been assembled. It consisted of the 20-gun frigate "Sirius;" the armed tender "Supply;" three store ships—the "Golden Grove," "Fishburn," and "Borrowdale"; and six transports—the "Alexander," "Scarborough," "Lady Penrhyn," "Prince of Wales," "Friendship," and "Charlotte." The largest of these vessels only measured 450 tons, and the smallest was no more than 270 tons. On board of the six transports (the "Sirius" and "Supply," and the store ships carrying only their ordinary crew) were packed no fewer than 564 men and 192 women, all prisoners who had been sentenced to expatriation. There were also carried 168 marines and 10 officers, commissioned and non-commissioned. These, with five medical men, a few mechanics, and forty women, wives of marines, together with thirteen children, the offspring of the convicts, made up the total number of persons despatched to found the Colony.

Captain Phillip, R.N., was placed in command of the expedition, and also bore a commission as Governor and Captain General of New South Wales. Second in command was Captain John Hunter, of the "Sirius," and Mr. David Collins accompanied the expedition as Judge Advocate.

Sailing and arrival of the "First Fleet."

The fleet sailed at the end of May, 1787, and after calling at Rio Janeiro, arrived in Botany Bay in the beginning of January, 1788. A cursory examination convinced Captain Phillip that a more unsuitable site for a new settlement could hardly have been chosen than the shores of this bay. Despite the profusion of new plants which had so delighted Banks and Solander, the neighbourhood of Botany Bay is barren in the extreme. Moreover, there was a scarcity of good water, and the bay itself was so shallow as to forbid the ships approaching the shore, which would have necessitated the erection of piers and jetties of great length: it was besides exposed to the full swell of the Pacific, being destitute of bays, creeks, or coves of any kind. The Governor accordingly determined to explore the coast in search of a more suitable site for the settlement. After proceeding in three of the boats about nine miles, he found himself abreast of the entrance of Port Jackson, which Cook had supposed to be a mere shallow indentation of the land, fit for nothing but a landing-place for boats. Undeterred by this opinion, Phillip rounded the South Head and soon saw the whole expanse of one of the finest harbours in the world opening before him. For miles to the west stretched the peaceful waters of Port Jackson, which must have delighted the minds of the explorers, disheartened as they had been by the appearance and surroundings of Botany Bay. In place of the stunted scrub which formed the greater part of the vegetation of that locality, Port Jackson was found to be surrounded by a thick forest of noble trees, which extended to the water's edge, and promised an abundant supply of timber for building. In place of the open roadstead at Botany a countless succession of bays and inlets opened on the astonished gaze of the hardy navigators as they proceeded up the harbour. Deep water was found to extend to the very base of the rocks, thus obviating any necessity for expensive wharves, the construction of which must have occupied the little community for months, to the neglect of more immediately pressing wants.

Sydney Cove discovered.

The Governor's choice of the site of the present metropolis of Australasia was determined by the fact that an apparently perennial stream of the purest water was found discharging itself into a beautiful sandy cove about six miles from the entrance, which was named Sydney Cove, in honour of the statesman under whose auspices the enterprise had been undertaken. Before finally deciding on this site, Captain Phillip spent three days in exploring the various bays, but was confirmed in his original choice by the fact that no such stream of water had been found elsewhere, though in other respects numerous positions equally eligible presented themselves.

La Pérouse's Expedition.

Returning immediately to Botany, preparations were made for bringing the colony round to Sydney Cove, when as the fleet were standing out of the bay an interesting incident occurred. Two strange vessels evidently making for the entrance were discerned in the offing. Captain Phillip went out in the "Supply" to meet the strangers, and discovered them to be a French exploring expedition, consisting of the frigates "Astrolabe" and "Boussole," commanded by Jean François Galaup, Comte de la Pérouse. After an interchange of courtesies, the French were left to refresh and refit in Botany Bay. They stayed there till March, 1788, and buried one of their company on shore—Father le Receveur, of the Order of St. Francis, the naturalist of the Expedition, who died of wounds received in an encounter with the natives of the South Seas. His tomb is still extant at La Pérouse, near the north head of Botany Bay, where also a monument was placed, in the year 1825, to the memory of the commander of the expedition, who was shipwrecked and whose crew were murdered on the Santa Cruz Islands. The monument was erected by Messrs. De Bougainville and Ducampier, commanding the French war vessels, "Thétis" and "Espérance," then lying in Port Jackson.

Foundation of the Colony.

On Captain Phillip's arrival in Sydney Harbour, on the memorable 26th January, 1788, the ships anchored in the Cove, and preparations were at once made for landing the colonists. The clearing of the ground in the vicinity, and along the banks of the little stream, was commenced, and when a sufficient space had thus been obtained a flagstaff was erected, and the Union Jack run up. After the firing of three volleys by the marines, the Governor read his commission, and addressed words of counsel, warning, and encouragement to the prisoners, the ceremony closing with general festivity. Arduous labour succeeded this scene, for it was well understood that unless the settlers could in some way raise supplies for themselves, the existence of the Colony would be precarious, as the store of provisions in their possession was calculated to last only a very short time.

Farming first attempted.

Accordingly ground was cleared at the head of Farm Cove, adjoining the settlement, and an attempt made to raise wheat, but time has shown that the soil in the immediate neighbourhood of Sydney is not suited to the cultivation of this cereal, and even if a good crop had been obtained the colonists must have starved while it was maturing. As it was, no food worth mentioning was obtained from the land, and the little community was on the brink of starvation, when a ship arrived with another batch of colonists, but without stores. This brought matters to a climax, whereupon the Governor sent the "Sirius" to the Cape Colony, and the "Supply" to Batavia, to procure provisions, which could only be obtained in insufficient quantity, so that in a few weeks after their return the state of affairs became as bad as before, and starvation again stared the Colony in the face. Under these circumstances, everyone, including the Governor himself, was placed on short allowance, and even the sheep and cattle which had been reserved for breeding purposes were killed for food. In this aspect of affairs the Governor bethought himself of Norfolk Island, whither, shortly after his arrival, he had sent Lieutenant Philip Gidley King, of the "Sirius," to establish a branch colony. A detachment, therefore, of 200 convicts, with a guard of seventy marines, was despatched to the island. On arriving there they found that King and his men had cleared a considerable portion of land, and had succeeded in raising an abundant crop. But the "Sirius," in which the new detachment sailed, was wrecked on a reef off the island, so that no supplies were procured thence at that time.

The "Second Fleet."

When the prospects of the settlement at Sydney Cove had reached their gloomiest, the "Second Fleet," consisting of three store-ships, arrived, and snatched the Colony from the very brink of destruction by famine. This tided over the difficulty, and so great a privation of food was never again experienced. Fresh difficulties, however, beset the settlers by the arrival of some shiploads of immigrants, most of whom were in a sick and dying condition. Of 1,700 men and women who had been embarked, 200 died on the voyage, and several hundred more were found to be *in extremis* on arrival. In the midst of these horrors the Governor's responsibilities were further increased by the attempts of some of the prisoners to escape from the Colony. Some took to the bush, others stole boats and put to sea, intending to reach the Dutch settlements in the Indian Ocean. Daring as this latter attempt may appear, in one instance it was successful; two men and a woman, in an open boat, succeeding in reaching Timor, where they were imprisoned and sent back to Sydney on the first opportunity. Many attempts were made to escape from the settlement by land, the ignorance of the convicts being such that many imagined they could walk overland to China, and not a few perished in the bush in the attempt.

Departure of Phillip.

Governor Phillip's health gave way under the care and anxieties of his office, and in 1792 he returned to England, where in reward for his exertions in founding the Colony he received a pension, and died at an advanced age. Major Grose and Captain Paterson, officers in charge of the military, administered the Government till the arrival of his successor. In 1795, Captain Hunter, who after the loss of the "Sirius" had gone to England, arrived as the second Governor. With the arrival of Governor Hunter affairs took a new turn. He brought out a number of free settlers, mostly farming men; and some fine alluvial land having been discovered on the banks of the Hawkesbury, farming was successfully started, and in a short time more than 6,000 acres were under crops of wheat and maize. The attempts to introduce cattle were for a time unsuccessful, but in 1796 a herd of sixty head was discovered at the "Cowpastures," near Camden. These were the produce of some cattle which had strayed from the settlement several years before. Though their quality was found to have deteriorated, they were a very welcome addition to the live stock of the settlement. In 1800, when Captain Hunter left the Colony, the population was over 6,000 ; attempts had been made to penetrate the interior, but without success ; the Hunter River and its coal-mines had been discovered, and the mines were being worked by a detachment of prisoners ; the city of Newcastle had been founded, and the New South Wales Corps, a military body enlisted for service in the Colony (the first detachments of which had arrived in 1790), formed an efficient garrison, and guard over the more refractory prisoners. During Governor Hunter's term of office Bass and Flinders minutely examined the coast to the south of Sydney, in a small boat only nine feet over all ; and the former discovered the strait which bears his name, thus proving Tasmania to be an island, and not the southern extremity of the continent, as previously supposed.

Governor King.

The next Governor was Philip Gidley King, previously mentioned as the Lieutenant of the "Sirius," who was despatched by Phillip to found a settlement on Norfolk Island. Though all fears of famine had now disappeared, Governor King soon found himself involved in difficulties of a scarcely less distressing nature. To explain these it will be necessary to describe the constitution of the New South Wales Corps. This body had been specially raised for service in the Colony, the officers of the King's regiments not unnaturally objecting to be sent to such a far distant settlement, where they knew that they would find no intellectual occupation, and where their sole work would consist in acting as a prison guard on a large scale, or, at most, in making a few raids, in alleged reprisal for the misdeeds of the much ill-used, and often sorely-provoked aboriginals. As a military guard of some sort was necessary this corps was raised, and a few enterprising spirits—many of whom had never served before—were induced to accept commissions, with the view of obtaining grants of land and making their fortunes in the Colony. Unfortunately, the readiest means to this end was found in the import trade; and as rum was in great request, the officers of the New South Wales Corps became importers of that spirit in large quantities, and even set up private stills, in defiance of a Government order to the contrary. As an instance of the enormous profits made in this trade, it may be mentioned that the retail price, on the arrival of Governor King, was £2 per gallon, 7s. 6d. to 10s. being the utmost cost to the importer. To put a stop to this state of things—in which the officials and rulers of the Colony were really doing their best to debase those committed to their charge—a clause in the instructions of the new Governor ran as follows:— "You are to order and direct that no spirits be landed from any vessel coming to Port Jackson without your consent." In consequence of this order King proceeded to act promptly, and when he left the Colony in 1806, he had sent away no less a quantity than 69,484 gallons of spirits, and 31,293 gallons of wine. The quantity which he allowed to be landed was sold, by his order, at various prices, the maximum not exceeding 10s. per gallon. It can be easily imagined what a storm such vigorous proceedings caused among the importers, and how embittered the officers of the New South Wales Corps became against the Government.

Traffic in spirits.

During King's time a serious mutiny occurred among the prisoners. The more tractable of the convicts were "assigned" as servants to the settlers, and engaged in working the farms and squattages, but the more desperate characters were worked on the roads, in chain-gangs. A party of over 300 of these chain-gang men was employed at Castlehill, on the road between Parramatta and Windsor. The men, taking advantage of the small number of the guard, abandoned their work, managed to remove their irons, seized about 250 stand of arms, and marched towards the Hawkesbury, expecting to be reinforced by the men employed in that neighbourhood. Major Johnston, second in command of the New South Wales Corps, pursued them, however, with only twenty men, and on coming up with them charged with

The Castlehill Revolt.

such gallantry and precipitation that the mutineers were fain to lay down their arms and beg for mercy. Three or four of the ringleaders were afterwards hanged, and the rest were permitted to return to their duty on undertaking to be of good conduct for the future.

Initiation of wool-growing.

An event of the utmost importance to the Colony also took place under the administration of Governor King. This was the initiation of wool-growing, John Macarthur, who had held a commission as captain in the New South Wales Corps, procured, by great trouble and perseverance, some Spanish merinos, and, having obtained a grant of 10,000 acres of land across the Cowpasture River, which estate he named "Camden", commenced the growth of wool on a large scale. In a short time he was in a fair way to amass a considerable fortune, to the great benefit of the Colony generally, as well as his own personal advantage. In spite of these encouraging events Governor King was so worn out with the conflicts caused by his endeavours to suppress the rum traffic, and in such constant collision with the officers of the New South Wales Corps on that account, that he seized the first opportunity of leaving the Colony, and was succeeded in the Government in in 1806, by William Bligh, a post-captain in the navy.

Governor Bligh.

Governor Bligh was a distinguished naval officer. His wonderful voyage after the Mutiny of the "Bounty" had caused the Imperial Government to entertain a high opinion of his conduct, as well as his courage and determination. His services were numerous, and he had been publicly thanked by Lord Nelson, after the bombardment of Copenhagen, for the gallantry and skill which he displayed on that occasion. Hence he was selected as a fit man to crush the clique of officers engaged in the rum traffic, and to purify official life in the Colony. King had been only partially successful in this direction, and the Home Government, in the belief that he had been too weak, or at least not physically able to put down the traffic, gave the strictest instructions to Captain Bligh to stop the trade in spirits. Accordingly in March, 1806, he issued the following general order :—" His Excellency the Governor laments to find by his late visit through the Colony that the most calamitous evils have been produced by persons bartering, or paying, spirits for grain of all kinds, and the necessaries of life in general, and to labourers for their hire ; such proceedings depressing the industrious and depriving the settlers of their comforts. In order, therefore, to remedy these grievous complaints, and to relieve the inhabitants, who have suffered by the traffic, he feels it his duty to put a total stop to this barter in future, and to prohibit the exchange of spirits or other liquors as payment for grain, animal food, wearing apparel, or any other commodity whatsoever, to all descriptions of persons in the Colony and its dependencies."

This order is in itself sufficient to show to what fearful lengths the "rum currency" had been carried. Naturally it would have been expected that all respectable people, the military and ex-military especially, would have joined the Governor heart and soul in his efforts to put a stop to the traffic, and induce a more healthy state of things. Such, however, was not the case, and the struggle in respect to the illicit trade continued throughout the whole period of Bligh's governorship.

Embittered relations between Governor and settlers.

Other matters embittered the relations between the Governor and the colonists, and in these Bligh was not so obviously in the right as in his attempt to put down the contraband traffic in spirits. The contest reached its climax on the arrest of John Macarthur, whose efforts to promote the growth of wool have been alluded to. How this gentleman became specially obnoxious to the Governor does not appear, but it is certain that he was selected as a scapegoat for the sins of the rest, and matters were brought to a crisis in the following manner, though the immediate circumstances of his prosecution had no direct connection with the barter of spirits. Mr. Macarthur had been part owner of a vessel that traded to Tahiti for salt pork, and other articles, for the supply of the Colony. At a time when this vessel was lying in Port Jackson, it seems that he received a summons from Mr. Atkins, the Judge Advocate—that is, Chief Justice—to appear before him to answer a complaint on the part of the crew of his vessel of withholding from them their wages, in consequence of which they alleged that they had been compelled to break through the port orders, by coming on shore without special order. To this Macarthur returned an answer in writing, explanatory of his conduct in the matter, but did not obey the summons by appearing in person. This was construed to be an act of contumacy, which some attributed to a feeling of personal resentment towards the Governor, engendered by the latter's action against the "rum currency." A warrant was accordingly issued for Macarthur's apprehension, and on the 25th January, 1808, he was brought before the Judge Advocate and a military jury of six, consisting of officers of the New South Wales Corps—such being at the time the composition of the Supreme Court of the Colony. Mr. Macarthur objected to the Judge Advocate sitting on his trial, on the ground that he bore him personal ill-feeling, for which assertion it would appear that there was valid foundation, especially as Atkins's adviser throughout the whole proceedings was one George Crossley, a transported attorney, who is known to have been an enemy of Macarthur. Be this as it may, the Judge Advocate refused to abdicate his position, and the Governor declined to supersede him (for which, indeed, he had no authority, Atkins having been appointed by the home Government). At this juncture the Governor summoned the six officers to his presence, to explain their conduct in supporting Macarthur's protest and refusing to sit with the Judge Advocate, but they declined to obey. The Governor also sent several times during the next day to Major Johnston, the Commandant, at his residence at Annandale, asking him to come and confer with him as to the conduct of his subordinates. That gentleman, however, declined to come to town, on the plea of ill-health. This was an evident subterfuge, for between 6 and 7 p.m. on the same day (the Anniversary of the

Arrest of Macarthur.

foundation of the Colony) he suddenly made his appearance in the Barrack Square, where, if we may believe his statement, he found everything in a state of ferment and confusion, and himself beset with the clamours of a number of the leading inhabitants, civil as well as military, calling upon him to put the Governor under arrest, which he accordingly did in the following manner. He marched at the head of his regiment, with drums beating and colours flying, to Government House, and the Governor was put in close confinement in his own residence. Johnston thereupon assumed the Government, his first act being to suspend the Judge Advocate, the Commissary, the Provost-marshal, the Chaplain, and other principal officials, and to appoint others to act in their place. Major Johnston continued to administer the Government till his Lieutenant-Colonel (Foveaux) superseded him, as the senior officer in the Colony, and eventually Colonel Paterson came from Tasmania and assumed the direction of affairs. Both these officers approved Johnston's proceedings, but the latter set Bligh at liberty on condition of his proceeding straight to England, in a vessel which was then ready to sail. Bligh promised to do so, but called at Tasmania on his way, where the military authorities attempted to detain him. He escaped their hands, and reached England in safety, where the Government were much concerned at his account of the proceedings in New South Wales. News of the affair had reached England previously, however, and Lieutenant-Colonel Macquarie was on his way out as Governor. His instructions were to reinstate Governor Bligh for twenty-four hours, to assume the government himself, and to send Johnston home under close arrest. Bligh could not be reinstated, as he had left Sydney; so Macquarie's first act was to arrest Major Johnston, who was subsequently tried by court-martial and sentenced to be cashiered, the Prince Regent, in a minute appended to the proceedings remarking the leniency of the sentence, and distinctly stating that it was not to be drawn into a precedent. Johnston afterwards returned to the Colony, and died at his estate at Annandale.

Deposition of Bligh.

Johnston tried by Court Martial.

Arrival of Macquarie.

With the arrival of Governor Macquarie, the Colony entered on a stage of decided progress. The final abolition of the traffic in rum was followed by a marked improvement in the morals of the population. Schools were established, and the children, who hitherto had grown up in total ignorance, were taught to read and write, and instructed in useful handicrafts. An impetus was given to exploration, and the dwellings of the settlers in the bush were much improved by the efforts of the Governor during the annual tours which he made through the Colony. Churches and public buildings were erected, asylums were founded, and altogether a better tone was given to society by the exertions of this philanthropic governor, ably seconded by the endeavours of his high-minded wife to improve the condition of her sex and the children in the Colony. Among the many beneficial works undertaken by Macquarie, by far the most important was the road over the Mountains, via Lapstone Hill and Mount Victoria, to Bathurst. After many attempts to penetrate the Coast Range, it was at last successfully crossed in 1813 by Blaxland, Wentworth, and Lawson, names memorable in the annals of the Colony. An account of the expedition will be found in another place.

His policy.

Another distinguishing part of Governor Macquarie's policy, which was almost as beneficial as his efforts to instruct the population in religion and morality, and to open up the country, was the favour with which he treated the "emancipists," that is, prisoners who had become free by serving out their sentences. When it is remembered that the majority of those transported had been guilty of petty offences only, or of acts which would not in these days be deemed offences at all, the Governor's determination to give every encouragement in the way of official recognition to emancipists must be strongly commended. To transport a person for a petty offence, to ostracise him for the rest of his life, and to extend the social ignominy to his children was in the highest degree unjust; and Governor Macquarie, as a humane man, set his face against it accordingly. He also showed a largeness of mind in religious matters, in advance of public opinion, by removing, as far as lay in his power, the religious disabilities under which a large portion of the colonists laboured.

In 1821, after a longer term of office than has been allotted to any Governor either before or since, "L. Macquarie, Esq.," as he modestly styles himself in the inscriptions on the public buildings he erected—discarding the prestige attaching to his military rank—left the Colony, to the regret of the entire population, and was succeeded by Sir Thomas Brisbane.

Governor Brisbane.

The new Governor trod in the steps of his predecessor. He carried on the work of exploration, and in 1823 despatched Mr. Oxley (the Surveyor-General) to survey Moreton Bay, Port Curtis, and other parts of the north-eastern coast-line. Oxley discovered a river debouching into Moreton Bay, which he named after the Governor, and a town was founded on its banks, also named Brisbane, which has become the capital of the Colony of Queensland. The Murray and Murrumbidgee Rivers were discovered soon afterwards by Hovell and Hume, who had formed an exploring party under the auspices of the Governor. The immigration of free settlers was much encouraged by Sir Thomas Brisbane, the result being the arrival of numbers of young men, many possessing capital, who became squatters, and soon wrought an important change in the Colony, by causing the costly Government farms to be broken up. The wants of the community were consequently supplied better and cheaper by private enterprise. A censorship of the press, which had been strictly enforced up to this time, was abolished by Governor Brisbane, by proclamation dated 15th October, 1824. Trial by jury was introduced about the same period, by which the privilege of being tried by his peers was extended to every man, the assessors to the judge before that time having been chosen exclusively from officers in the army. Sir Francis Forbes, the first Chief Justice, was mainly instrumental in introducing this great and salutary change in the administration of the law. The first

Trial by Jury introduced.

normally constituted jury sat at the November Quarter Sessions of 1824. An Act had also been passed by the Imperial Parliament, in 1823, which conferred another most important privilege on the Colony. It was provided that the Governor should nominate a Legislative Council of seven members, by whose advice he was to be guided. Previously to the appointment of this Council the Governor had been virtually absolute in his power, the only check upon it being the public opinion of the colonists and the authority of the British Government, as represented by the Secretary of State for the Colonies. This Council of Seven was really the nucleus around which have gathered our present Constitution, and the liberties we now possess. It was the first step, in which, says the proverb, all the difficulty consists; and yet it was only after much agitation that even this modicum of justice was conceded.

Governor Darling.

The next Governor was Sir Ralph Darling, who, finding the Colony in the state of progress above described, by a series of blunders nearly succeeded in marring the beneficial result of the efforts of his predecessors. Arriving in Sydney in 1825, he soon became involved in very serious disputes with the colonists and the press. In order to meet the criticisms of the latter, a number of Acts were passed by the Council, which had the effect of stifling obnoxious comments for the time. One good result which sprang indirectly from these arbitrary acts was the enlargement, in 1828, of the Legislative Council from seven to fifteen members. The "Bushranging Act" was passed by this Council, to put down what had become a prevalent nuisance; gangs of escaped prisoners infesting the principal roads and robbing all-comers without distinction.

Exploration.

The work of exploration made some progress in Governor Darling's time, the famous journeys of Captain Charles Sturt being undertaken under his sanction. Other explorers were Allan Cunningham, Hume, and George Macleay, son of Alexander Macleay, the Colonial Secretary of that day.

Suspected French Settlements.

It was strongly suspected at this time that the French had an idea of forming settlements in Australia. French ships constantly appeared off the coast, ostensibly fitted out for the purpose of making geographical discoveries, but, as was believed, to found a colony in any Australian territory which they might find unoccupied. To frustrate this suspected design Darling despatched two expeditions, in 1826, to King George's Sound and to Western Port, in which neighbourhood it was surmised the French were hovering. To show that there was cause for these fears, chimerical as they may now appear, it will be sufficient to quote the Governor's instructions to the officers in charge of the expeditions. He says:—"Should you find the French already in occupation, you will, notwithstanding, land the troops, and signify to the Frenchmen that their continuance with any view to establishing themselves, or colonization, will be considered an unjustifiable intrusion on his Britannic Majesty's possessions." No Frenchmen, however, were found at either of the places in question, but settlements were made at both places, and also at Swan River, in Western Australia. When Governor Darling left the Colony in 1831, much progress had been achieved, in spite of the newspaper war, and his personal unpopularity, for the population had reached over 51,000 for the whole of New South Wales, and the value of the total exports was £500,000.

Governor Bourke.

The unpopularity of Governor Darling gave a factitious advantage to his successor, Sir Richard Bourke, even before his sterling qualities had become known. Sir Richard Bourke may be said to have been the real founder of our present free institutions, as, under his rule, the foundations of the constitution we now enjoy were well and firmly laid, on the solid basis of full and equal rights to all, whatever their sect or belief, and whether "emancipist" or originally free. Immigrants began to arrive in large numbers, under a policy of assisted immigration, which was then first commenced. The first vote in aid of immigration was made by the Legislative Council at Bourke's suggestion, and the Home

Government doubled the amount given by the Colony. Under that system the first batches of immigrants to arrive were fifty young women from an orphan school in Cork, and fifty-nine mechanics from Scotland, whom the Rev. Dr. Lang introduced to aid him in building the Australian College.

**Establishment of Religious Equality.**

But the great achievement of Sir Richard Bourke's reign was the establishment of religious equality, and the breaking up of the monopoly of Government aid enjoyed by one communion. For his services in the cause of liberty, in this and other instances, a movement was set on foot after his departure—which took place in 1837, twelve months after the passing of the Church Act—to erect a statue of him in Sydney. Accordingly, Mr. Westmacott was commissioned to design a figure of Sir Richard in bronze, which, together with a granite pedestal, arrived in Sydney in 1842. It was erected where it now stands, at the Macquarie-street entrance to the Domain, opposite to the Public Library, and was unveiled on the 11th April, 1842. A general holiday was proclaimed on the occasion, and the assemblage was the most numerous which had up to that time gathered, for any purpose, in the metropolis. The succeeding Governor, Sir George Gipps, delivered a speech, laudatory of his predecessor, in whose steps he said he was resolved to tread. This was the first statue ever set up in Australia. It was no more than a fitting tribute to the virtues of the Governor, and serves even now as a reminder of the new order of things which he introduced.

**Governor Gipps.**

**Free grants of land abolished.**

Free grants of land were abolished at this time. All land in the settled districts was put up to auction at an upset price of 5s. per acre, except in the Port Phillip district, where £1 per acre was fixed as the lowest price, on account of the fitness of the land for agriculture. Beyond the settled districts the runs of the squatters, whose boundaries had hitherto been undefined, were marked out, and a small rent charged, in return for a partial fixity of tenure, the squatters having previously been liable to be turned out at any time.

**Sir Thomas Mitchell's explorations.**

The famous expeditions of Sir Thomas Mitchell, who had succeeded Oxley as Surveyor-General, were undertaken during Bourke's tenure of office. The first was to the north, as far as Liverpool Plains; in the second, the country between the Bogan and the Macquarie was surveyed; and in the third, the course of the Darling was traced, from its source to its junction with the Murray. In the fourth Mitchell discovered the rich lands of Victoria, which so enraptured him that he named the country Australia Felix.

**Transportation abolished.**

The reign of Sir George Gipps was marked by the abolition of transportation. The system of assigning convicts as servants to the settlers had ceased in 1838, and transportation itself was abolished by an Order in Council in 1840, though an attempt was made to revive it nine years later, an account of which will be given in due course. The great event of Governor Gipps's time was undoubtedly the introduction of a new Constitution, by the establishment of a Legislative Council composed of thirty-six members, twelve of whom were to be nominated by the Crown, and the remainder elected by those who were placed on the electoral roll, a small property qualification being required. The new Council met on 1st August, 1843.

**Commercial crisis.**

A great commercial crisis followed soon after the introduction of the new Constitution, so that the subject of paramount importance which engaged the attention of the Legislature was the financial condition of the Colony. The cessation of transportation had, of course, caused the withdrawal of large sums of British money, which used to be spent on public works and in maintaining the prison establishments, and the military necessary to guard them; and much distress was also caused by an unwise interference on the part of the Imperial Government with the land laws. The commercial depression which supervened was very serious. The price of land and stock came down to zero. Sellers were many, but buyers were few. The price of sheep fell in the most alarming manner, one shilling per head being a common price. Mr. O'Brien, who occupied a run in the Yass District, at length hit upon the happy idea of boiling down sheep for tallow, for which at the time there was a good market in Europe; and the price of sheep was thus raised to three shillings or four shillings a head, five shillings' or six shillings' worth of tallow being obtainable by the process of boiling-down. A great many failures occurred about this time, the most striking being that of the Bank of Australia, the liability of whose shareholders was unlimited.

Boiling-down introduced.

The Legislative Council, imagining that the very existence of the Colony was threatened by the state of things prevailing, sought to "avert ruin"—to use their own expression—by "pledging the public credit," but the Governor refused the Royal assent to the Bill passed for that purpose. It was then proposed to issue Treasury Bills, but the Council would not entertain the idea. The failure of the Bank of Australia brought affairs to a crisis, and it was proposed to relieve the shareholders of their liability by a Bill empowering the bank to dispose of its assets by a public lottery. No attempt was made to defend lotteries in general, but it was contended that if the goods of proprietors of the bank were seized under executions, the bailiff would be seen in possession of one house in ten in Sydney, and that the result would be a panic, which would annihilate the value of property. Under pressure of such an argument as this the "Lottery Bill" passed, but was disallowed by the Home authorities. The necessity of the case was so urgent, however, that the lottery took place, and was successfully completed before the law officers of the Crown could interfere to prevent it. Desperate diseases require desperate remedies, and the lottery was, no doubt, in the main beneficial.

The Bank of Australia Lottery.

Separation of Port Phillip.

The first agitation for the separation of the Port Phillip district, and its formation into a separate colony, took place towards the close of Governor Gipps's administration, and the claims of the trans-Murray residents to govern themselves were ably advocated by Dr. Lang, one of the six members returned by the whole of the present Colony of Victoria. It must be remembered, however, that the entire population of what is now New South Wales, Victoria, and Queensland did not exceed 150,000, of which the Port Phillip district contributed only 30,000. Their distance from the seat of Government, nevertheless, justified their demand for separation, which was ultimately conceded in 1851, to their great permanent benefit.

Governor Fitzroy.

Sir George Gipps was succeeded as Governor by Sir Charles Augustus Fitzroy, in whose tenure of office occurred several of the most important events in the history of Australia. These, in the order of their happening, were the final abolition of transportation in 1849; the separation of Victoria in 1851; the discovery of gold in the same year, and the establishment of Responsible Government in 1855–6.

Prisoners had ceased to be sent to New South Wales in 1840, but owing to the great depression of trade which prevailed during the rule of Governor Gipps, station properties, in 1849, so depreciated in value as to threaten ruin to their holders. Many of the squatters thought that a revival of the system of assigned servants would be beneficial to their interests, and, as it happened, the Imperial Government wished at that time to posses once more a large penal colony. Two powerful interests therefore were allied in an effort to re-establish transportation, and the system of assigned servants. In the face of this threatening combination, a number of public meetings were held in Sydney, and an overwhelming expression of popular opinion, most vehemently adverse to the scheme, was given; nevertheless the Home Government, under the advice of Sir Charles Fitzroy, persisted in their endeavours to force prisoners upon the unwilling inhabitants of the Colony. Several ship-loads of convicts were accordingly sent out, and the first place where an attempt was made to land them

Attempt to revive Transportation.

was the new settlement at Port Phillip, now the City of Melbourne. The settlers there, however, would not tolerate the proceeding, whereupon the ships left for Sydney and Moreton Bay, now Brisbane. One of the vessels named the "Hashemy," cast anchor in Port Jackson, and there immediately ensued a serious contest between the inhabitants and the Executive. Immediately on the fact becoming publicly known that the "Hashemy" was off the Heads with convicts on board, the people of the metropolis were lashed into a fever of excitement, and a great public meeting was forthwith convened to consider what steps should be taken in this pressing emergency, as it then was universally considered. The result was that the Government saw fit to forbid the landing of the prisoners at that time, not caring to face the obloquy and public indignation which the adoption of any other course would certainly have brought upon them. As, however, the "Hashemy" could not be sent back, and as her prisoners could not permanently remain on board, a compromise was entered into. The following paragraph from a newspaper of June 19th, 1849, will explain its nature :—

Landing of convicts forbidden.

"All the convicts will be removed from the ship this morning; they have all been engaged. In addition to those previously mentioned, a large draft was sent to Parramatta, under engagement to Mr. Fitzgerald, M.L.C., and Mr. Dawson, and others. The forty-five men sent to Moreton Bay, were forwarded at the expense of the Government, not being under any engagement, but merely sent to the district in order that the settlers there may have an opportunity of hiring them. All the rest have been taken from the ship at the expense of their employers. The only restrictions are that the men are not to be landed in Sydney, and that they shall not be employed in the county of Cumberland."

The Legislative Council afterwards proceeded to take action in the matter, and a resolution was proposed, to the effect "that an address be presented to Her Majesty, praying that the Order in

Anti-transportation meetings.

Council which declared New South Wales a colony to which convicts might be sent be at once revoked." The adjournment of the Council was, however, agreed to before the motion could be put. In consequence of this partial shelving of the question an overwhelming public meeting was held, which petitioned the Council to use its utmost endeavours to prevent the revival of transportation in any form. The petition in a short time was signed by over 35,000 persons (more than two thirds of the population of the metropolis). There was no resisting this manifestation of public opinion, and the pro-transportation members temporarily withdrew from the Council, whereupon the motion stated above was carried unanimously, and the address to the Queen was accordingly transmitted. The Order in Council was revoked, and transportation to New South Wales was thus absolutely and finally abolished. The discovery of gold, which shortly followed, gave a new impetus to Australian society, and by developing the industry and wealth of the country rendered a return to the "prison times" for ever impossible.

Discovery of gold.

The discovery of gold, in 1851, was by far the most important incident which had yet occurred in the annals of the country. A detailed account of that remarkable event will be found in its proper place, but a few remarks are here called for as to the historical bearing of the great discovery.

For many years previous to 1851 it was known that small quantities of gold had been found in the Bathurst district, and a colonist offered, during the administration of Sir George Gipps, to conduct the Government surveyors to a spot where he said gold existed in payable quantities. The project was, however, discouraged. The Colony at the time was enjoying a period of great prosperity, the depression of previous years having been successfully tided over; and it was probably thought unadvisable by the authorities to disturb the settled industries of the Colony, by the incitement to speculation which the gold fever would generate.

Gold fever.

A few years went by, and the recollection of the supposed gold discoveries was still fresh in men's minds. The prosperous days with which Governor Gipps's administration closed gave place to less fortunate times. Wages were low and work scarce, when suddenly the tale of the gold discovery was on every tongue. In the early part of 1851 nuggets began to arrive in Sydney. They had been found in the vicinity of Bathurst, and their inspection by the public raised a wave of excitement, which affected all classes. It is not surprising that the possibility of amassing a fortune in a few months—which seemed indisputable from the presence of so many specimens of gold—should have induced hundreds of people of all ranks to abandon their employments and set out for Bathurst, some on foot carrying their "swags" on their backs, and those who could command a little money riding in waggons and drays.

On the 2nd May a Government proclamation was issued, giving the regulations under which persons were to be permitted to seek for gold, establishing the office of "Gold Commissioner," and providing for the issue of licenses. Subsequently a proclamation was issued declaring that all gold found *in situ* was the property of the Crown, and a police magistrate was appointed the first Gold Commissioner, with instructions to organize a mounted force of ten men, and to issue licenses to miners for the sum of thirty shillings per month. He was also instructed to co-operate with the ordinary police in the maintenance of law and order, and was furnished with authority to swear in licensed diggers as special constables. Diggings were discovered in rapid succession, and the machinery of commissioners, special constables, and gold escorts, was made to keep pace with the diggers' requirements.

Effects of the discovery of gold.

The effect produced on society by this most fortunate discovery, was unpleasant enough at first. Stations throughout the Colony were left without hands, and all ordinary occupations were threatened with extinction, in consequence of the general exodus to the gold-fields. The squatters even petitioned the Government, asking that martial law might be proclaimed, and all gold-digging peremptorily prohibited, in order that the ordinary industrial pursuits of the country should not be interfered with. The Governor, however, refused to accede to this manifestly absurd request. So great a change in the circumstances of the country as that wrought within so short a time, by the gold discovery, could not fail to affect many persons prejudicially. But after a few years, affairs resumed their normal course, and gold-mining found its level as one of the ordinary industries of the country. But the great and permanent benefit which resulted from the influx of an enterprising population, the increase of wealth, and the consequent development of many other industries cannot be overrated. Nothing, since the introduction of wool-growing, has tended to develop its resources and to make so widely known the great advantages which Australia offers to the overcrowded populations of the Old World, as the discovery of gold in 1851. Since that era the country's progress has been by leaps and bounds, and Australia, which was before regarded merely as a far off dependency of Great Britain, now takes place amongst the nations of the world, and is in a fair way of realizing the prophetic visions of future greatness which inspired its founders.

Events preceding Responsible Government.

The series of events which led to the introduction of Responsible Government still remains to be touched on. With a narrative of these, and an account of the actual inauguration of representative institutions—that is, with the political occurrences of 1855—this narrative will fitly close. All occurrences since that period have been treated as far as possible as matters of statistics, and will be found in their places in other parts of this volume.

The gold discovery was in many respects the proximate, though not the efficient cause of dissatisfaction with the Constitution which became very manifest during the years immediately preceding 1855. The government of the Colony as a Crown dependency, had long been felt to be a galling one, and the increase of population, caused by the break-out of the gold-diggings, furnished the opportunity for successful agitation. A handful of people might have been governed under the old system, but not such a community as New South Wales had become in 1854.

**Victoria erected into a separate Colony.**

In 1850-1 an Act was passed by the Imperial Parliament (13 and 14 Vict., No. 59) empowering the Queen to assent to certain schedules thereto, in accordance with which the dependency of Victoria was erected into a separate colony, and a constitution was to be conferred upon New South Wales. Accordingly, in 1852, a Select Committee of the Legislative Council was appointed to prepare a constitution for the Colony in pursuance of the powers conferred by the Act above cited. The first result of the labours of the Committee was that a remonstrance, directed not so much against the old form of government, as against the amendment to the Constitution, which had been rendered necessary in consequence of the separation of Port Phillip from the parent Colony, was sent to the Home Government. Subsequently, after much correspondence, and the receipt of a despatch from the Secretary for the Colonies, Sir John Pakington, practically conceding all that the colonists demanded, a Committee of the Legislative Council was appointed to draft the new Constitution. It consisted of the following gentlemen:—Messrs. Wentworth, Deas-Thomson, James Macarthur, Cowper, Martin, Macleay, Thurlow, Murray, and Dr. Douglass.

**Framing of the Constitution Act.**

The Committee, in their report, stated that they desired to have a form of government in perfect accordance with the British Constitution, and that a conservative element ought to be constantly present in the Constitution; and for this reason they declared they did not feel inclined to hazard the experiment of an Upper House based on the general elective franchise. To provide for this Upper House, the Committee gravely made the following recommendations. They proposed that an hereditary nobility should be created, leaving the Crown to decide whether or not to give the first holder of a title a seat for life, and that the aristocracy, to be thus established, should, in the future, elect a certain number of their order to form the higher branch of the Legislature. The question of federation was also noticed in the report :—" One of the most prominent legislative measures required by the Colony, and the colonies of the Australian group generally, is the establishment at once of a General Assembly, to make laws in relation to those intercolonial questions that have arisen, or may hereafter arise, among them. The questions which would claim the exercise of such a jurisdiction appear to be (1) Intercolonial tariffs and the coasting trade; (2) Railways, roads, canals, and other such works running through any two of the colonies; (3) Beacons and lighthouses on the coast; (4) Intercolonial gold regulations; (5) Postage between the said colonies; (6) A general court of appeal from the courts of such colonies; (7) A power to legislate on all other subjects which may be submitted to them by addresses from the Legislative Councils and Assemblies of the colonies, and to appropriate to any of the above mentioned objects the necessary sums of money, to be raised by a per-centage on the revenues of all the colonies interested."

Hereditary nobility proposed

This report, when it was made public, caused a good deal of commotion in the metropolis, and at a public meeting held at the Royal Hotel, the following energetic protest against part of the scheme was adopted :—"That this meeting views with surprise, and strong feelings of opposition, the scheme proposed for the political constitution of the Colony, especially in respect to the establishment of an Upper House of Crown nominees, and a certain unprecedented order of colonial nobility ;" and a further resolution decided that "a larger meeting should be held, in order to record a protest against a measure so repugnant to the feelings of British subjects, and fraught with so much danger to the political rights of the people." A more numerous meeting was accordingly held, the principal speakers at which were Mr. (now Sir Henry) Parkes, Messrs. Robert Johnson, Montefiore, Deniehy, Mort, Piddington, Flood, and Archdeacon McEncroe.

In spite of these meetings the Council proceeded to debate the Report as it stood. After a great deal of opposition, in order to retain the "aristocratic" clause, and after the holding of more public meetings, the "Constitution Act," the basis of the rights we now enjoy, was finally passed on the 21st December, 1853. This Act established two Legislative Chambers. The first was to consist of not less than twenty-one natural-born or naturalized subjects, four-fifths of whom were to be persons not holding any office of profit under the Crown, who were to be nominated by the Governor in the name of the Queen. The first members were to hold their seats for five years, at the expiration of which period those then living were to be made life members. The President was to be appointed by the Crown. The Legislative Assembly was to consist of fifty-four members, the qualification for the franchise being fixed as follows:—All inhabitants of full age, being native-born or naturalized subjects of the British Crown, and not having been convicted of any crime—or, if convicted, pardoned—and having paid all rates and taxes for which they were liable, were placed in the condition precedent required for either voting or being elected to the Assembly, but they were required, in addition to be qualified in the following respects:—As the owner of a freehold estate of £100; as householders, lodging occupiers, or leaseholders for three years at £10 per annum. To these were added boarders at £40 per annum, persons receiving £100 a year salary, and pasture-license holders for one year. Ministers of religion were declared incapable of being elected to the Legislature.

The new Constitution.

On the 19th December, 1855, the new Constitution (the Act having passed through all its stages and received the Royal Assent) was formally inaugurated by the new Governor-General, Sir William Denison, who had just succeeded Fitzroy, being sworn in afresh under a Commission from the Queen, which revoked his former credentials and appointed him "Governor-in-Chief" of New South Wales.

The succession of Governors from the foundation of the Colony to the present time is given in the following table :—

Succession of Governors.

| Names. | From | To |
|---|---|---|
| Captain A. Phillip, R.N. ......................... | 26 Jan., 1788 | 10 Dec., 1792. |
| Captain F. Grose (Lieutenant-Governor) ... | 11 Dec., 1792 | 12 Dec., 1794. |
| Captain Paterson, New South Wales Corps (Lieutenant-Governor). | 13 Dec., 1794 | 1 Sept., 1795. |
| Captain Hunter, R.N. ............................. | 7 Sept., 1795 | 27 Sept., 1800. |
| Captain P. G. King, R.N. ....................... | 28 Sept., 1800 | 12 Aug., 1806. |
| Captain W. Bligh, R.N. ......................... | 13 Aug., 1806 | 26 Jan., 1808. |
| During Governor Bligh's suspension the Government was successively administered by— | | |
| Lieutenant-Colonel G. Johnston ...<br>Lieutenant-Colonel Foveaux .........<br>Colonel William Paterson .........<br>All of the New South Wales Corps, afterwards 102nd Regiment. | 26 Jan., 1808 | 28 Dec., 1809. |
| Major-General L. Macquarie .................. | 1 Jan., 1810 | 1 Dec., 1821. |
| Major-General Sir T. Brisbane, K.C.B. ... | 1 Dec., 1821 | 1 Dec., 1825. |
| Colonel Stewart, 3rd Regiment or Buffs (Acting Governor). | 6 Dec., 1825 | 18 Dec., 1825. |
| Lieutenant-General R. Darling ............... | 19 Dec., 1825 | 21 Oct., 1831. |
| Colonel Lindsay, C.B. (Acting Governor)... | 22 Oct., 1831 | 2 Dec., 1831. |
| Major-General Sir Richard Bourke, K.C.B. | 3 Dec., 1831 | 5 Dec., 1837. |
| Lieutenant-Colonel K. Snodgrass (Acting Governor). | 6 Dec., 1837 | 23 Feb., 1838. |
| Sir George Gipps ................................. | 24 Feb., 1838 | 11 July, 1846. |
| Sir Maurice O'Connell (Acting Governor)... | 12 July, 1846 | 2 Aug., 1846. |

Succession of Governors.

| Names. | From | To |
|---|---|---|
| Sir Charles A. Fitzroy ........................ | 3 Aug., 1846 | 17 Jan., 1855. |
| Sir William Thomas Denison, K.C.B. ...... | 20 Jan., 1855 | 22 Jan., 1861. |
| Lieutenant-Colonel John F. Kempt (Administrator). | 23 Jan., 1861 | 21 Mar., 1861. |
| The Right Honorable Sir John Young, K.C.B., G.C.M.G. Administrator ...... | 22 Mar., 1861 | 15 May, 1861. |
| Governor-in-Chief... | 16 May, 1861 | 24 Dec., 1867. |
| Sir Trevor Chute, K.C.B. (Administrator)... | 25 Dec., 1867 | 7 Jan., 1868. |
| Right Honorable the Earl of Belmore, P.C. | 8 Jan., 1868 | 22 Feb., 1872. |
| Sir Alfred Stephen, Knt., C.B. (Administrator). | 23 Feb., 1872 | 2 June, 1872. |
| Sir Hercules George Robert Robinson, G.C.M.G., Governor-in-Chief. | 3 June, 1872 | 19 Mar., 1879. |
| Sir Alfred Stephen, K.C.M.G., C.B. (Lieutenant-Governor). | 20 Mar., 1879 | 3 Aug., 1879. |
| The Right Honorable Lord Augustus William Frederick Spencer Loftus, P.C., G.C.B. | 4 Aug., 1879 | 9 Nov., 1885. |
| Sir Alfred Stephen, G.C.M.G., C.B. (Lieutenant-Governor). | 10 Nov., 1885 | 11 Dec., 1885. |
| The Right Honorable Charles Robert Baron Carrington, P.C., G.C.M.G. | 12 Dec., 1885 | (Still in office.) |

# PART II.

## Limits and Area.

THE Colony of New South Wales lies almost entirely between the 29th and 36th parallels of south latitude, and between the 141st and 153rd meridians east of Greenwich. It is bounded on the east by the Pacific Ocean, to which it presents a coast-line extending over 700 miles, from Point Danger at its north-eastern extremity to Cape Howe at the south-east. From the point last-mentioned, which is also the north-east limit of the Colony of Victoria, it is bounded by an imaginary line, running in a north-westerly direction to the source of the Indi, a stream rising at the foot of Forest Hill, a few miles south of the Pilot Mountain, one of the most conspicuous peaks of the Australian Alps. The southern boundary of the Colony follows the course of the Indi, and afterwards of the Murray, into which the first-named stream ultimately merges, as far as the 141st meridian of east longitude. The intersection of the Murray with this meridian forms a common point of the three Colonies of New South Wales, Victoria, and South Australia.

**Boundaries of the Colony.**

On the west, the Colony is separated from South Australia by the line of the 141st meridian, as far as its intersection with the 29th parallel of south latitude, at which point New South Wales, South Australia, and Queensland touch. Commencing at this point, the northern boundary of the Colony follows the 29th degree of latitude, till it is crossed by the Macintyre River, one of the upper branches of the Darling, not far from the 149th meridian. Thence it follows the course of the Macintyre upward, to the junction of its tributary, the Dumaresq; leaving the Macintyre it follows the tributary stream till it meets a spur extending from the main Dividing Range to the junction of Tenterfield Creek and the Dumaresq. The boundary runs along this spur until it joins the main range, thence, almost parallel to the coast, it follows the Dividing Range to Wilson's Peak, where the Macpherson Range branches eastward. Following the last-named range, the northern boundary reaches the coast at Point Danger.

**Area.**

The area comprised within these limits is estimated at 310,700 square miles, or 198,848,000 acres, being a little over two-and-a-half times that of Great Britain and Ireland.

The length of the Colony, from Point Danger on the north to Cape Howe on the south, is 680 miles. From east to west, along the 29th parallel, the breadth is 760 miles, while diagonally from the south-west corner, where the Murray passes into South Australia, to Point Danger, the length reaches 850 miles.

# PART III.

## Physical Configuration.

THE surface of New South Wales is naturally divided into three distinct zones, each widely differing in general character and physical aspect, and clearly defined by the Main Dividing Range, which traverses the country from north to south.

The table-land, which forms the summit of this range, comprises one of the zones above mentioned, and marks the division between the coastal region, forming the eastern watershed, and the great plain district of the interior.

### *MOUNTAINS, TABLE-LAND, ETC.*

**Dividing Range.**

The Main Dividing Range runs almost parallel to the coast, at no great distance from it. On the eastern edge of the table-land the mountains rise abruptly to a height which averages between 2,000 and 3,000 feet, while on the western side they slope gradually towards the great central plain.

The geographical centre of the whole mountain system of South-Eastern Australia lies in the south-western portion of New South Wales, close to the confines of Victoria. Here some of the peaks rise to a height of over 7,000 feet above the level of the sea. Mount Kosciusko and Mount Townsend, two of the highest peaks of the Australian Alps, attain an elevation of 7,171 feet and 7,256 feet respectively.

**Central Plateau.**

The central plateau, which these heights dominate, becomes subdivided into several branches, marking the watersheds of three distinct river systems. The eastern watershed extends throughout the whole length of New South Wales and Queensland, and drains into the Pacific Ocean. The western watershed, embracing a portion of the three eastern colonies, is drained by the river system of the Murray and Darling into the Southern Ocean. Of the southern watershed, the upper basin of the Snowy River is alone in New South Wales, its drainage being carried to the sea near Bass Straits.

The south-eastern portion of the Colony.

The south-eastern portion of the Colony has the appearance of having been convulsed by some great physical disturbance. The mountains are rugged, and their slopes abrupt, as is also the case in other portions of the Dividing Range, particularly in the Blue Mountains and the eastern parts of New England; but the width and altitude of the table-land are greatest in this portion of the Colony. The average height of the Snowy and Muniong Ranges, which belong to this district, reaches 5,000 feet; and the width of the plateau, in the direction of east and west, may be set down as 100 miles. The altitude of the Monaro district averages 2,000 feet above the sea level; but as the table-land runs northward it decreases greatly in height and in width, until it narrows to only a few miles, with an elevation of scarcely 1,500 feet.

Blue Mountains.

The table-land rises again at the Blue Mountains, where the principal summits attain a considerable elevation, Mount Beemarang reaching 4,100 feet. The general level of the plateau itself will be best understood when it is remembered that the great western railway of the Colony traverses a district in these mountains, of which the Clarence siding, Mount Victoria, Mount Wilson, and Blackheath are stations, situated at an elevation of over 3,000 feet.

The dividing chain again decreases gradually in its spread northward of the Blue Mountains, until, as a comparatively narrow chain, it divides the waters of the Goulburn and the Hunter, on the eastern slope, from those of the Namoi and the Castlereagh, on the western. The mass once more widens out in the Liverpool Ranges, where Mount Oxley stands conspicuous, at a height of

4,500 feet, whilst, still further north, Ben Lomond reaches 5,000 feet, and the table-land maintains an average altitude of 3,000 feet, giving to this district, although situated at no great distance from the tropics, the climate and aspect of much higher latitudes.

**Mountain scenery.**

Narrow valleys and deep gorges everywhere break the continuity of the Dividing Range. Such is especially the case in the Blue Mountains, where the scenery is of striking and characteristic grandeur. The table-land everywhere presents one strange peculiarity. The level land suddenly terminates, and many hundred feet below stretch, as far as the eye can reach, wooded valleys, whose undulating floors are walled in by sandstone cliffs, of height so enormous as to be without parallel elsewhere in the world. At the bottom of these valleys small rivulets and tiny streams, fed by waterfalls from the table-land, trace their way, under an ever verdant dome of graceful tree-ferns and giant eucalypti.

The mountain scenery of this part of New South Wales produces on the traveller an entirely new impression. There are no snow-capped peaks upon which the rising and setting sun produces strange and magnificent colour effects; nor does any peculiar shape of the summits strike the imagination, as in the Alps and Pyrenees of the Old World. On the contrary, from the plains, the New South Wales mountains look rather insignificant. But gazing from the edges of the high table-land into the deep valleys below, the mind is awed by the realization of the magnificent scale on which Nature has worked in these solitudes. In many places the cliffs rise 2,000 feet perpendicularly from the valley beneath, and the hills at their feet, formed by the accumulation of débris from their sides and from the plateau above, seem slight undulations.

The valleys and sides of the gorges, wherever there is soil, are clothed with dense vegetation, and over all is the mantle of blue haze, which makes the whole effect most striking, and has given to the range visible from Sydney its appropriate name.

The main range throws off many spurs towards the sea on the eastern slope. These divide the waters of the numerous rivers which flow into the Pacific Ocean. Almost everywhere between the coast range and the sea the country is hilly and serrated, more particularly in the southern portion of the Colony. In the Illawarra district, 50 miles to the south of Sydney, the mountains skirt the very edge of the coast, presenting towards the ocean a perpendicular face of cliffs nearly 1,000 feet in height. Further north there are wider valleys, and greater stretches of country available for tillage and pasture.

The western slope is entirely different. Numerous ramifications of the general mountain system are thrown off, but all slope gently towards the great central plain of the interior. So gentle, indeed, is the declivity, that the dividing lines of the various watersheds as they extend westward, are scarcely visible on the ground, being indicated by a succession of low ridges and isolated elevations.

**Western Mountain system.**

In the extreme west of the Colony, verging on South Australia, another mountain system exists, forming the western edge of an immense depression, through which the largest rivers of the Australian continent hold their devious course. The Great Barrier and the Grey Ranges form this system. They consist of low hills, hardly rising to the dignity of mountains, culminating in a few solitary peaks, such as Mount Arrowsmith and Mount Lyell, which attain an elevation of only 2,000 feet above sea level.

Traces have been found of the existence at some earlier period of a range of primary rocks, extending from Orange to Cobar and Wilcannia, forming the watershed between the Lachlan and part of the basin of the Darling. The range no longer exists as a landmark, for, owing to denudation, it has almost entirely disappeared.

The whole of the mountain system of New South Wales lies below the limit of perpetual snow. On the south-eastern slopes of the Snowy Ranges, however, and on the summits of the high peaks of the Australian Alps, snow sometimes lingers throughout the year.

### *LAKES OF THE MOUNTAIN REGION.*

On the summit of the Main Dividing Range, and within a few miles of the inland towns of Goulburn, Queanbeyan, and Braidwood, two of the principal lakes of the Colony are situated.

**Lake George.**

Lake George is 16 miles in length and 6 miles in width, draining a basin whose area is about 490 square miles. The lake is situated at an elevation of 2,200 feet above the sea, and the scenery around it is very beautiful. This lake exhibits the phenomenon of a large drainage area without a visible outlet; for though it receives many small water-courses no stream leaves it.

**Lake Bathurst.**

Lake Bathurst, a few miles eastward of Lake George, is another depression on the summit of the Dividing Range, and covers in ordinary seasons an area of about 15 square miles. It is similar in character to Lake George, having no outlet to the sea.

Both lakes, in periods of great drought, shrink greatly in area; but Lake George in most seasons is a fine sheet of water, and now that the railway to Cooma skirts its shores, the attractiveness of its scenery already makes it a favourite resort of tourists.

### *THE COASTAL REGION.*

**Rivers of New South Wales.**

*Rivers.*—The main range already described, traversing the country from north to south, gives rise to numerous rivers flowing into the South Pacific.

Compared with the western rivers those of the eastern slope appear insignificant enough. But compared with the principal rivers either of England or France, their relative size and importance are at once manifest.

**The Tweed and Brunswick.**

In the extreme north of the Colony, the Tweed and Brunswick Rivers flow through a rich country, of semi-tropical aspect. Their courses are short, and bar entrances render them navigable only for small craft.

The Richmond

A few miles south of the Brunswick, the Richmond descends from the heights of the Macpherson Range, on the slope of Mount Lindsay, one of the highest peaks of the northern table-land. The river has three branches, and is navigable on the northern arm as far as Casino, 49 miles, and on Wilson's Creek to Lismore, 65 miles from the sea. The Richmond drains an area of about 2,400 square miles of country, rugged in its upper basin, and heavily timbered, and in its lower course, flowing through rich alluvial land, where the produce of semi-tropical climes grows luxuriantly.

The Clarence.

Immediately south of the last-named stream is the Clarence—the largest river on the eastern watershed. It takes its rise in a spur of the Main Dividing Range, and runs in a south-easterly direction for 240 miles, carrying a considerable body of water through one of the richest districts of the Colony, and empties itself into the Pacific at Shoal Bay. The upper part of its basin is very rugged, so much so that its principal tributaries, the Mitchell, Nymboi, Tembarra, and Orara Rivers, rising in the New England table-land, between Armidale and Tenterfield, all flow in an opposite direction to the course of the main stream, generally trending to the north-east, and even, in the case of the Orara, to the north-west.

The Lower Clarence is a magnificent stream, averaging half a mile in width from its mouth upwards, for nearly 70 miles, and is navigable for 136 miles, as far as Solferino. Ocean going steamers of large tonnage ascend the river as far as Grafton, 42 miles from the sea.

The area of country drained by the Clarence is over 8,000 square miles, or nearly half as large again as the basin of the Thames, whose course is about as long as the Clarence, but navigable for only 60 miles.

The Bellinger.
The Nambuccra.

Two short rivers, the Bellinger and the Nambuccra, both navigable for some distance by small craft, enter the Pacific between the Clarence and Trial Bay.

Into Trial Bay, the Macleay, one of the principal rivers of the coast, discharges after a course of 200 miles from its source near Ben Lomond. With its principal feeders, the Gyra and the Apsley, the Macleay drains an area of 4,800 square miles of country, the upper part of which, especially that portion through which the Apsley flows, is extremely rugged and precipitous. Series of waterfalls, some of which have a perpendicular descent of over 200 feet, mark the course of this stream as it runs through narrow gorges, whose sides rise in places to a height of about two thousand feet. In its lower course the valley widens very considerably into magnificent alluvial plains, fast becoming the home of a numerous and thriving population. The Macleay.

The Macleay is navigable for more than 30 miles, as far as the town of Greenhills, a place a few miles above Kempsey. The country through which it flows is for the most part thickly timbered.

The Hastings is the next stream met with, emptying itself into the sea at Port Macquarie. The country which it drains is rich, undulating, and densely wooded, and the area within its watershed is 1,400 square miles. Its chief arm is formed by the Wilson and Maria Rivers, on the left bank, the latter joining the main stream at Port Macquarie. The Hastings.

The Manning rises in the Main Dividing Range, and flows almost due east through a prosperous district, rapidly becoming settled. The valley through which it flows is densely wooded, and the agricultural land on both sides of the river is unsurpassed for fertility. The Manning.

The Manning has a length of 100 miles, and, like most of the rivers of the seaboard, its course lies through undulating country, broken in the upper portion, but widening out as it nears the sea. Its chief tributary is the Barrington, on the right bank; on the left it receives the Barnard River, the Dawson, the Lansdowne, and other small streams. The river is navigable for ocean-going vessels as far as Wingham, about 20 miles from its mouth.

Before reaching the Hunter, several small streams are met with, amongst which may be mentioned the Wollomba and Maclean, falling into Wallis Lake, the Myall, which empties into Myall Lake, and the Karuah, which reaches the ocean at Port Stephens.

**The Hunter.**

The Hunter is one of the chief rivers of the Colony, and has its source in the Liverpool Range. It flows first in a southerly direction until its confluence with the Goulburn, thence it takes an easterly course, and reaches the sea at Port Hunter, on the shores of which is situated the City of Newcastle. The Hunter receives numerous tributaries, the chief of these, in addition to the Goulburn already mentioned, are the Wollombi, the Paterson and the Williams. With its tributaries, the Hunter drains a country extending over 11,000 square miles, an area more than twice as large as the basin of the Thames.

The river is navigable for ocean going vessels as far as Morpeth, 34 miles from the sea, whilst the Paterson and the Williams are both navigable, the one for a distance of 18 miles, and the other for 20 miles.

The upper courses of the main river and its branches are through hilly, if not mountainous, districts, but its lower course is mainly through rich, sandy, alluvial flats. Through its lower course the river drains the largest and most important coal-field of Australia, whose entrepôt is Newcastle, the second city of the Colony in shipping and commerce. The length of the Hunter is over 200 miles.

**The Hawkesbury.**

Though less important from a commercial point of view than the Hunter, the Hawkesbury, which reaches the sea at Broken Bay, is none the less one of the finest rivers of the eastern seaboard. It is formed by the united waters of many streams, each of considerable local importance. Its chief tributaries come from the table-land or gorges of the Blue Mountains, but the principal branch of the river itself rises in the main range, further south. At no great distance from Lake Bathurst, running north-easterly, a spur leaves the main system and terminates at the sea, in the Illawarra district. This spur forms the division between the Hawkesbury and the Shoalhaven drainage basins.

Wollondilly.

Under the name of the Wollondilly, the Hawkesbury has its source not many miles from Goulburn. Flowing past that town it runs northerly until it receives the waters of the Cox River, which comes from the Blue Mountains, after passing through wild gorges, wherein may be found some of the most magnificent scenery in Australia. From the junction of the Cox River the stream is known as the Warragamba, which name it retains until its junction with the Nepean. This river rises in the coast range overlooking Wollongong, and together with its tributary streams, the Cataract and Cordeaux, forms the source of the water-works from which Sydney will in future draw its supply. Though smaller than the Warragamba, the Nepean gives its name to the united waters of the two streams. After receiving the Nepean the river flows along the foot of the Blue Mountains, through a rich valley highly cultivated. From the Blue Mountains two streams add their waters to it, the Grose and the Colo, and from the junction of the last named the river is called the Hawkesbury.

From the Colo junction the river still runs northward until it is joined by the Macdonald, an important stream, navigable for some distance above its confluence with the Hawkesbury. The Macdonald comes from the north, and joins the river on the left bank. The Hawkesbury, after turning to the east, holds its course through broken country, the scenery of which has been pronounced equal to any other river scenery in the world, and finally reaches the sea at Broken Bay.

The course of the Hawkesbury extends over 330 miles, and the drainage area may be set down as 8,000 square miles. Navigation is possible as far as Windsor, 70 miles from the mouth, and a little dredging would enable sea-going vessels to reach this town.

In the neighbourhood of Sydney some small streams fall into Botany Bay. Two of these, the Woronora and George's Rivers, have their sources on the eastern slope of the ranges, in which the Nepean, Cordeaux, and Cataract rise, and after rapid courses unite their waters before falling into the bay.

Rivers south of Sydney.

Generally speaking, the rivers south of Sydney are of less importance than those to the north, as the width of the coastal strip narrows considerably; nevertheless, the Shoalhaven merits more than a passing notice. It rises in the coastal range and follows the direction of the coast, flowing northerly through deep gullies, marked by magnificent scenery peculiarly Australian. Turning sharply to the east, it enters the alluvial plains, which are counted amongst the richest and most productive in the country. The Shoalhaven is 260 miles in length, but is navigable only for a few miles, and drains a district 3,300 miles in area.

Further south, in the narrow belt between the ranges and the sea, flow the Clyde, Moruya, Tuross, and Bega Rivers. They all pass through rich, undulating agricultural country, and each has an average length of from 60 to 70 miles. The Towamba River, at the extreme south of the Colony, empties itself into the Pacific at Twofold Bay.

The physical aspect of all the eastern rivers of the Colony is much the same, their upper courses being amidst broken and mountainous districts, and their lower waters flowing through undulating country with rich alluvial flats along their banks, for the most part highly cultivated. Where not cultivated, the country is densely covered with timber, some of which attains a magnificent growth, yielding the finest hardwood, and, in the north, cedar and pine.

The Snowy River.

Though belonging to another river system, the upper basin of the Snowy River is situated in New South Wales. The river receives the snow-fed streams rising on the southern slopes of the Monaro Range; its principal tributaries being the Bombala and the Eucumbene. The Snowy River and its tributaries water a considerable portion of the highest table-land of the Colony, between the mountain ranges of which are found large tracts of arable land, where the produce of colder climes may be grown to perfection. After leaving New South Wales, the Snowy has a rapid and tortuous course and finally enters the sea between Cape Howe and Bass Straits, in the Colony of Victoria. The area of watershed in New South Wales is about 2,800 square miles.

## *HARBOURS AND PORTS.*

**Natural harbours.** With a coast as extensive as that of New South Wales, it would be natural to expect many harbours and bays affording outlets for the produce of the country. Such is the case. Besides harbours of commercial importance, there are others, which afford shelter for vessels in stress of weather, and a refuge in time of danger. Fortunately, however, harbours of refuge are not often required. The coast of the Colony is singularly free from cyclones, hurricanes, and like visitations. Gales are certainly not unknown, nor are disasters infrequently recorded; but the coast is very safe, and disasters are in many cases to be attributed to causes which ordinary prudence would have avoided.

**Byron Bay.** Inside Cape Byron, in the north of the Colony, the bay of the same name offers shelter to vessels trading to Queensland, in all but north-east weather. A large pier is being constructed, by which the produce of the neighbouring districts of the Brunswick and Tweed may be shipped, when an entrance to these rivers is impracticable. It is also proposed to construct a breakwater, to effectually shelter the bay in all weathers.

**Shoal Bay.** At Shoal Bay, the entrance to the Clarence, the anchorage is safe and commodious. Works have been in progress for improving the river entrance, the effect of which has already been felt, and the mouth of the Clarence promises to be one of the best ports on the coast.

Trial Bay.

Trial Bay, at the mouth of the Macleay, is used as a harbour of refuge, and affords ample shelter and safe anchorage. The Government have erected a large prison on the hill overlooking the Bay, and it is proposed to utilize the prisoners' labour in constructing a breakwater, with the view of making Trial Bay not only a harbour of refuge, but a shipping port. If such design be accomplished, there is every reason to suppose that it will become one of the most important places on the coast, as the resources of the Macleay District are large and rapidly developing.

Port Macquarie. Port Stephens.

Port Macquarie, at the mouth of the Hastings, and the harbour at Forster, near Cape Hawke, afford good anchorage. Port Stephens, a little further south, offers at all times the most safe and commodious harbour desirable. As a natural port it is hardly inferior to Port Jackson, and the scenery of its shores is very beautiful. At present, Port Stephens is little used, owing to its proximity to Newcastle, and the sparseness of the population in its immediate district.

Port Hunter.

Twenty miles further south is Port Hunter, at the mouth of the river of that name. When first used, the harbour was inconvenient and somewhat dangerous; but this has been altered entirely by the breakwaters and training walls which have been constructed. Newcastle harbour is now a safe and roomy port, with shipping facilities equal, if not superior, to those found in any other Australian port. Magnificent wharves line its shores, provided with hydraulic and steam cranes of the most modern type. The length of wharf frontage at Newcastle is eight miles. The trade of Newcastle is large and increasing, and the city ranks third amongst Australasian seaports. The importance of Newcastle is mainly due to the existence of immense coal deposits in its neighbourhood, which supply not only all the Australian Colonies, but the China seas, South America, and the Pacific slopes of the United States. Latterly, too, large shipments of wool have been made direct to English ports, Newcastle being the terminus of the railway tapping the northern districts of the Colony.

A few miles south of Newcastle is Lake Macquarie, in the centre of the coal-field of the Newcastle district, and covering an area of 44 square miles. The great drawback to the lake as a shipping port has been the shallowness of its entrance; extensive dykes and training walls are being constructed, which have already effected considerable improvement in the channel, and a further improvement only is needed to make Lake Macquarie an important shipping place. Lake Macquarie.

Broken Bay, 30 miles north of Port Jackson, forms the mouth of the River Hawkesbury. It has a bold entrance, on the southern headland of which, called Barranjoey, is erected a fine lighthouse. The bay has three branches, Brisbane Water being the northern arm, the Hawkesbury mouth the centre, and Pittwater the southern arm. The first-named opens out into a series of lakes, and the town of Gosford, standing at the head of one of them—the Broadwater—is the centre of an extensive shipbuilding district. The scenery at and around Broken Bay is characteristically Australian, and in natural beauty rivals even Sydney Harbour. South of Broken Bay the coast-line is a succession of high cliffs and sandy beaches. Broken Bay.

The entrance of Port Jackson lies between perpendicular cliffs of sandstone several hundred feet high, and only three-quarters of a mile apart. Sydney Harbour has been too often described to require further description here. It holds the first place amongst the harbours of the world for convenience of entrance, depth of water, and natural shipping facilities. Its natural beauties are the charm of all who visit its shores, and in the the quiet waters of its numerous bays and coves the navies of the world might securely rest. The area of water surface of the harbour proper is 15 square miles, and the shore-line is 165 miles in circuit. At the South Head is erected a splendid lighthouse, fitted with an electric arc light, the power of which is scarcely exceeded on any coast. Port Jackson.

On the shores of Port Jackson stands Sydney, the metropolis of New South Wales and the mother city of the Australias. The city and its suburbs occupy 100 square miles, and have within their boundaries about 330,000 people.

Botany Bay.

Botany Bay, the first port entered by Captain Cook, the discoverer of this territory, lies a few miles south of Sydney. It covers an area of 24 square miles, and receives the waters of several small rivers. The bay has very little trade, by reason of its proximity to Sydney, but it is frequented by craft in search of shelter during stress of weather.

Wollongong, Kiama, and Ulladulla are small harbours which have been snatched, as it were, from the sea, and are important shipping places.

Jervis Bay.

About 80 miles to the south of Sydney the coast is broken by an important inlet called Jervis Bay. Its entrance is 2 miles wide, and on its bosom safe anchorage may be found in any part. It is surrounded by rich agricultural and mining country, as yet, to a large extent, undeveloped. Nature has been so bountiful to the country as a whole, that particular districts, undoubtedly rich, must remain for a while undeveloped, through want of labour and capital to open them up, and ports which would in older countries be prized for their convenience and capacity, here remain unused, save as refuges in stormy weather.

Bateman's Bay, at the entrance to the Clyde, is a port of some importance, and coastal steamers also load produce at the mouth of the Moruya, Tuross, and Bega rivers.

Twofold Bay.

Twofold Bay is a magnificent sheet of water, near the southern limit of the Colony. Formerly it was the seat of a large whaling trade, now no more. It is well sheltered, and a fine jetty affords ample shipping facilities. Its trade is chiefly with the neighbouring colonies, in produce and live stock, the bay being the nearest outlet on the sea coast for the rich district of Monaro. A railway is planned to connect the port with the table-land and the metropolis, and Twofold Bay promises to become an important port in the near future. On its shores is situated the thriving town of Eden.

Coastal Lakes.

Besides the ports and harbours properly so called, which have been above enumerated, there are several lakes, or arms of the sea, which will, with the development of the resources of the country, become ports of shipment. From Cape Hawke to Port Stephens a chain of lakes extends, communicating with the latter through the Myall River, and covering a large area. The most extensive are Wallis Lake, Myall Lake, and the Broadwater. The country round about is richly timbered, but its resources are still undeveloped. Between Lake Macquarie and Broken Bay is Tuggerah Lake, also an extensive sheet of water. Near Wollongong is Lake Illawarra, of considerable area, but shallow, and towards the south of the colony are Coila and Tuross Lakes, into which the Tuross River discharges.

### *ISLANDS.*

Islands.

No islands of any note belong geographically to New South Wales. The Broughton Islands, lying a few miles northward of the Heads of Port Stephens, are the largest in extent. Solitary Island, situated near the northern part of the coast, between the Bellinger and Clarence Rivers, and Montagu Island, 18 miles south-east of the Moruya River estuary, have been selected as the sites for light-houses, but are not otherwise important.

Norfolk Island, having an area of 8,607 acres, and also Lord Howe Island, belong politically, but not geographically, to New South Wales. The last-named island has an area of 3,220 acres.

### *WESTERN WATERSHED.*

The Western Watershed.

The western watershed of the Colony is in physical features and geographical character the antithesis of the eastern. Instead of a narrow strip of country shut in by the sea and mountains, intersected by numerous short rivers with a rapid flow, the western watershed forms a vast basin through which the quiet waters of a few great rivers have their long, though uncertain, courses.

The rivers of the western region of the Colony all belong to the fluvial system of the Murray, which carries to the Southern Ocean, through the colony of South Australia, the drainage of a watershed immense in extent, embracing the northern portion of Victoria, and the western and larger part of New South Wales, and extending almost to the centre of Queensland.

The Murray.

The Murray, or Hume, the southern branch of this vast river system, rises in the Snowy Mountains, from which its three principal sources, the Hume, the Tooma, and the Indi descend. The first two of these streams rise on the northern and western slopes of Mount Kosciusko; the Indi, which is really the main river, has a longer course, rising in a gully near the Pilot Mountain, at 5,000 feet above the sea. From the confluence of these rivers, the Murray rapidly descends towards the plains below Albury, at which place it is only 490 feet above sea level, and has still a course of 1,439 miles to run. From Albury downwards the river receives many tributaries on both banks, those from New South Wales being the most important. Above Albury the tributaries are for the most part mountain torrents, carrying to the main stream the melted snows of the Australian Alps. In its lower course, however, the Murray receives, through the Murrumbidgee and Darling, the waters of secondary systems as important as its own.

Before being joined by the Murrumbidgee, the Murray receives, from a series of ana-branches, the drainage of a large portion of the country lying between the two main streams. The Billabung Creek runs almost through the centre of the plain spreading between the Murray and Murrumbidgee; in the middle of its course it communicates with the latter river, through Colombo and Yanko Creeks, whilst on the south it feeds the Murray by the channel of the Edward River. The Edward is itself an important stream. It forms with the Wakool and Tuppal Creeks, and many other smaller and less important water-courses, a fluvial system, interlacing the whole country from Tocumwal to the Murrumbidgee junction, which has been justly named Riverina. The Edward and Wakool are together navigable for over 400 miles, as far as the important town of Deniliquin.

From its furthest source at the foot of the Pilot Mountain to the town of Albury the Murray has a length of 280 miles. Thence to the Darling River junction, its course is 852 miles, and from that point to the sea, below Lake Alexandrina, it is 587 miles in length. The river has thus a total course of 1,719 miles, of which 1,120 are within the Colony of New South Wales. The river has been navigated as far as the Ournie gold-field, about 150 miles above Albury, and 1,590 miles from its mouth.

The Murrumbidgee.

The Murrumbidgee has its source at the foot of a hill overlooking the Coolaman Plains, at a height of nearly 5,000 feet above the sea. Its course first shapes itself southward, but near the town of Cooma it takes a sharp curve and runs in a northerly direction until it nears Yass. Here it curves again, trending to the west in a line parallel to the Murray, but turning south-west on receiving the Lachlan, it finally joins the main river after a course of 1,350 miles. The area drained by the Murrumbidgee is estimated at 15,400 square miles.

In the upper part of its course the Murrumbidgee receives from both sides numerous rivers and creeks, the most important of which are the Umaralla, Molonglo, and Yass rivers on its right, and the Cottier, Coodradigbee, and Tumut Rivers on its left bank. All these rivers run through mountainous country over a series of plateaux, which from the Coolaman and Coorangorambula Plains to the plains round Gundagai and Wagga successively diminish in height from 5,000 feet to 720 feet and 607 feet above the sea.

The upper valleys, both of the Murrumbidgee and the Murray, are of similar physical aspect. Both rivers are snow-fed, the Murray to a greater extent than its tributaries, owing to the higher elevation of the mountains and plateaux from which it descends. In the lower basins they are also similar in character, and the plains which they drain are amongst the most fertile in the Colony. With an intelligent system of water conservation and irrigation the lower valleys of these rivers would support a large population of agriculturists on land hitherto devoted entirely to sheep pasturing.

he Lachlan.

The main tributary of the Murrumbidgee is the Lachlan, rising in the main Dividing Range, where also its principal feeders have their source. These are the Boorowa, Crookwell, Abercrombie, and Belubula, all rapid streams, occasionally swollen by melting snow from the table-land. After receiving the Booroowa the Lachlan flows to the Murrumbidgee, through 500 miles of plain country, without receiving any tributary of permanent character. The water-courses which carry off the surplus water from the rich plains on either side of the river, only reach it in time of flood. The total length of the river is 700 miles, and its basin has an area of 13,500 square miles. The country drained by the Lachlan is similar in most respects to that of the Murray and Murrumbidgee, and with regular rainfall or irrigation, the light red soil and sandy loam of its lower valley would yield abundant returns to the farmer.

The lines of demarcation between the Lachlan basin and that of the Murrumbidgee on the south and the Darling on the north-west, are hardly perceptible on the ground, so flat is the country through which these great rivers flow.

he Darling.

Of all the tributaries of the Murray, the Darling drains the largest area, extending as it does over the greater portion of the western district of New South Wales, and embracing nearly all Southern Queensland. From its confluence with the Murray at

Wentworth up to its junction with the Culgoa a few miles above Bourke, the Darling receives only two tributaries, the Paroo and the Warrego, both intermittent, though of vast size in times of flood. For over a thousand miles the great river holds its solitary course, Nile-like, feeding the thirsty plains of the south with water falling many hundred miles distant on the downs of Queensland. The course of the river is tortuous in the extreme; in many places a narrow neck of land, a mile or two across, separates parts of the river 20 miles distant, if the stream were followed. The Darling presents the phenomenon, not uncommon in Australian rivers, of river banks much higher than the plain behind, indeed the river bed itself, though from 30 to 40 feet beneath the bank, is in some places but little below the general level of the country. Successive floods have added to the height of the banks and have raised the bed of the stream correspondingly.

The Upper Darling.

The Darling has no source under that name, which applies only to that part of the river as far as the Bogan junction. Above this point it takes the name of the Barwon, until its confluence with the Gwydir, then it is known as the Macintyre, and lastly the main branch receives the name of the Dumaresq. The last-named branch has its source in the Dividing Range, on the summit of the table-land at the extreme north-east of the Colony, not far from the source of the Richmond. The Dumaresq, Macintyre, and Barwon form, however, what might be really called the Upper Darling, and this appellation would be geographically accurate. The variety of names, by which not only the Darling, but many other Australian rivers are known, is due to the fact that they were discovered in sections, the identity of which were not established until years afterwards, and the sectional names have survived.

The Darling receives, in its upper course, many tributaries, which drain the southern portion of Queensland, but these rivers only flow for a short part of their courses in New South Wales. Chief among these are the Mooni, Narran, Bokhara, Culgoa, Warrego, and Paroo. Within the boundaries of the parent Colony the principal affluents of the Darling are on its left bank. The Gwydir, Namoi, Castlereagh, Macquarie, and Bogan are the most important. These streams are all of considerable length and similar in character, their upper valleys are on the table-lands and their lower courses lie through alluvial plains and good pastoral country.

The Darling is navigable, in times of freshets, as far as the township of Walgett, 1,758 miles from its confluence with the Murray thence to the sea the distance is 587 miles, making a total length of navigable water from Walgett to the sea of 2,345 miles, and it therefore ranks high amongst the rivers of the world, as estimated by navigable length. Unfortunately, however, it is navigable throughout only during part of the year.

Length of navigable water.

If the fluvial system of the Murray and Darling, and their principal tributaries, be considered in the light of the facilities it affords for water carriage, its value will appear not inconsiderable. The Darling River may be made available for navigation for 1,758 miles, from Wentworth to Walgett, the Murrumbidgee and Lachlan combined have 900 miles, and the Murray, from Ournie gold-field to the point where it enters the territory of South Australia, has a length of 1,120 miles. If to this be added the navigable length of the Wakool and Edward, the total distance of river which could be navigated reaches nearly 4,200 miles, in the western district alone, a length more than twice that of the railways of the Colony.

### *LAKES OF THE WESTERN DISTRICT.*

Here and there along the course of the western rivers are found lakes sometimes of considerable dimensions. These lakes are in reality shallow depressions, receiving water from the overflow of the rivers in times of flood, and in return feeding them when the floods have subsided. Lake Urana is the most important in the Murray and Murrumbidgee basin, and Lakes Cowall, Curgellico, and Waljeers, in that of the Lachlan. Along the Darling are Lakes Poopelloe and Gunyulka on the left bank and Laidley's Ponds and Lakes Pammaroo, Jandoo, and Cowndilla on the right, near Menindie. On the South Australian frontier are Lake Victoria, formed by the overflow of the Murray, and others of less importance. The area of these lakes is undefined, as they vary in size according to the rainfall, sometimes covering vast extents of country and at others being reduced to the proportions of mere waterholes, whilst in seasons of great drought they are absolutely waterless.

**Western Lakes.**

# PART IV.

## Climate.

IT is accepted as an ascertained fact that the temperature of lands in the southern hemisphere is less than that of countries situated in corresponding latitudes north of the equator; to this general law New South Wales is no exception. The researches of the Government Astronomer of the Colony conclusively confirm this, and show, from the records of temperature extending over many years, that the climate of New South Wales is one of the most temperate and uniform anywhere experienced.

Just as the country is naturally divided into three distinct geographical regions, so it is separated into the same climatic divisions, each of which has its characteristic features.

**Coastal Region**

The coastal region extends from 28° to 37° south latitude, and if the temperature accorded with that of similar latitudes in the northern hemisphere, Casino and Grafton would resemble the country bordering on the Gulf of Suez, in the Red Sea; Delhi, in India; Ningpo, in China, and New Orleans, in the United States. Such, however, is not the case. Casino has a mean temperature of 67°, only 1° more than that of Messina, in Sicily, which lies more than 9° further from the equator. Eden, which is situated at the extreme south of the Colony, in latitude 37°, has a mean temperature of 60°, which is practically the same as that of Nice and Rome, places respectively 460 and 330 miles further removed from the equator. Not only is the climate of the coastal region more mild in regard to average temperature than the corresponding latitudes in the northern hemisphere, but the range is not as great. This is a very important factor in estimating the healthiness of a country.

As regards Sydney, situated as it is midway between the extreme points of the Colony, in latitude 33° 51′ south, the same truth is apparent. Its mean temperature is 62·5°, and corresponds with that of Barcelona, the great maritime city of Spain, and of Toulon in France, the former being in latitude 44° 22′, and the latter 43° 7′ N. At Sydney, the mean summer temperature is slightly over 71°, and that of winter 54°. The range is thus 17° Fahrenheit. At Naples, where the mean temperature for the year is about the same as at Sydney, the summer temperature reaches a mean of 74·5°, and the mean of winter is 47·5°, with a range of 27°. Thus the summer is warmer, and the winter much colder than at Sydney. The greatest temperature in the shade ever experienced in Sydney was 106·9°, the lowest winter was 36·8°, giving a range of 70°. At Naples the range has been as great as 81°, the winter minimum falling sometimes below the freezing point.

Temperature of Sydney.

Taking the coast generally, the difference between the mean summer and mean winter temperature may be set down as averaging not more than 24°, a range so small that it will be rarely found elsewhere. The famed resorts on the Mediterranean seaboard bear no comparison with the Pacific slope of New South Wales, either for their natural salubrity, or the comparative mildness of their summer and winter, while the epidemics and pestilences which have devastated those regions of ancient civilization have never made their appearance on these shores.

Climate of table-land.

Passing from the coast to the table-land, a distinct climatic region is entered. On the high southern plateau, at an elevation of 4,640 feet, stands the town of Kiandra, having a mean summer temperature of 54·5°, and a winter temperature of 33°, corresponding with that of Dumfermline, in Scotland, in latitude 56° 5′ N, while Kiandra is in 35° 50′ S. Cooma, in the centre of the Monaro plains, at an elevation of 2,640 feet above sea-level, enjoys a summer as mild as either London or Paris, but its winters are far less severe. On the New England table-land, the climate of Armidale, and other towns, may be considered as nearly perfect as can be found. The yearly average temperature is scarcely 57°, while the summer only reaches 69°, and the winter falls to 46°, a range of temperature approximating closely to the famous health resorts in the south of France.

Western Districts.

The climatic conditions of the western districts of the Colony are entirely different from those of the other two regions, and have been often cited as disagreeable. Compared with the equable temperature of the coastal district, or table-land, there may appear some little justification for such reputation, but only in comparison. The climate of the great plains, in spite of the heat of part of the summer, is very healthy, and an inspection of the returns of death-rates, both of children and grown persons, given elsewhere, amply bears out this view. The town of Bourke may be cited as an example. Seated in the midst of the great plain of the interior, it illustrates peculiarly well the defects, as well as excellences, of the climate of the whole region. Bourke has exactly the same latitude as Cairo in Egypt, yet its summer temperature is 5° and its mean 6·5° less than the Egyptian city. New Orleans also lies under the same parallel, but the American city is 4° hotter in summer. As regards winter temperature Bourke leaves little to be desired. The mean winter reading of the thermometer is 52·3°, and accompanied as this is by clear skies and an absence of snow, the season is both refreshing and enjoyable. The great heat which occasional days in summer manifest, when the thermometer reads considerably over 100° in the shade, is not accompanied by that moisture in the air which would make a less degree of heat at the sea-coast almost unbearable.

Dryness of climate.

It is fortunate for the country that dryness is one of its characteristics, otherwise instead of being the abode of health, the interior of the Colony would, with abundant rains, have become an impenetrable jungle, the lurking-place of those malarial fevers which devastate so many fair regions of the Old World and America.

New South Wales may therefore be compared favourably with any part of the world, and taking into consideration the comparatively low latitudes in which it lies, it offers a most remarkable variety of temperate climates. From Kiandra, on the highest part of the great Dividing Range, to Bourke, on the great interior plain, the climate may be compared with that of the region of Europe extending from Edinburgh to Messina, but more generally resembling that of Southern France and Italy. It may therefore be

Climate adapted to European race.

regarded as peculiarly fitted for the habitation of people of European race, embracing, as it does, within its limits, the climatic conditions under which the most advanced races of the world have prospered.

The following tables show the average meteorological conditions in certain places, and fairly represent the whole Colony.

No. 1.—Table showing Temperature, Rainfall, and other Meteorological Conditions of certain Principal Stations in New South Wales :—

| Town. | South latitude. | Mean temperature. | Mean summer temperature. | Mean winter temperature. | Mean daily range of thermometer in shade. | Highest reading of thermometer. | Lowest reading of thermometer. | Mean annual rainfall. |
|---|---|---|---|---|---|---|---|---|
| | | | | *Table-land.* | | | | |
| | ° ′ | ° | ° | ° | ° | ° | ° | inches. |
| Kiandra ...... | 35·52 | 45·0 | 54·5 | 33·1 | 25·4 | 36·2 | 8·0 | 61·2 |
| Bombala ...... | 36·50 | 50·6 | 62·8 | 41·5 | 26·6 | 96·4 | 20·9 | 29·6 |
| Cooma ......... | 36·12 | 52·2 | 64·6 | 41·6 | ... | 107·5 | 15·0 | 18·4 |
| Queanbeyan... | 35·20 | 53·6 | 67·2 | 41·9 | 16·7 | 109·0 | 20·0 | 23·7 |
| Mt. Victoria... | 33·36 | 54·2 | 65·4 | 42·3 | 20·1 | 105·1 | 21·8 | 34·8 |
| Orange ......... | 33·18 | 55·2 | 67·7 | 42·3 | 16·9 | 99·5 | 22·2 | 41·1 |
| Goulburn ...... | 34·45 | 55·3 | 68·3 | 44·8 | 25·8 | 109·0 | 18·0 | 26·3 |
| Moss Vale ..... | 34·32 | 55·3 | 66·9 | 43·6 | 15·9 | 103·7 | 26·8 | 49·8 |
| Armidale ...... | 30·34 | 56·9 | 69·0 | 45·9 | 23·8 | 100·0 | 11·2 | 35·8 |
| Bathurst ...... | 33·24 | 57·2 | 70·8 | 45·0 | 30·3 | 112·5 | 3·0 | 25·0 |
| Tenterfield ... | 29·50 | 57·5 | 67·3 | 46·4 | 22·3 | 104·0 | 16·0 | 30·8 |
| Inverell ...... | 29·48 | 59·5 | 73·2 | 46·1 | 23·9 | 105·0 | 20·0 | 30·8 |
| Mudgee ...... | 32·35 | 59·8 | 74·8 | 47·9 | 19·4 | 114·0 | 26·0 | 28·0 |
| Forbes ......... | 33·27 | 60·8 | 74·7 | 48·7 | 21·0 | 110·0 | 24·0 | 20·7 |
| Cassilis ......... | 32·00 | 61·0 | 74·7 | 47·4 | 25·6 | 112·2 | 22·2 | 25·6 |
| | | | | *Coastal District.* | | | | |
| Eden............ | 37·00 | 60·3 | 67·7 | 51·1 | 13·9 | 106·0 | 36·0 | 45·1 |
| Wollongong... | 34·25 | 62·1 | 70·0 | 53·6 | 14·9 | 101·0 | 36·7 | 38·3 |
| Sydney ......... | 33·51 | 62·5 | 71·1 | 54·1 | 14·3 | 136·9 | 36·8 | 50·1 |
| Maitland ...... | 32·47 | 62·5 | 73·1 | 51·4 | 21·5 | 112·0 | 24·0 | 34·8 |
| Port Macquarie.. | 21·25 | 63·7 | 72·4 | 55·8 | 15·7 | 101·3 | 34·0 | 63·3 |
| Windsor ...... | 33·36 | 63·8 | 72·3 | 52·6 | 26·1 | 113·9 | 21·5 | 34·3 |
| Newcastle...... | 32·55 | 63·9 | 71·9 | 54·7 | 17·9 | 120·0 | 38·3 | 50·0 |
| Grafton ...... | 29·43 | 68·3 | 75·6 | 56·3 | 27·8 | 118·0 | 21·0 | 38·1 |
| | | | | *Western District.* | | | | |
| Deniliquin ... | 35·32 | 59·9 | 73·2 | 48·5 | 20·6 | 121·0 | 16·0 | 16·4 |
| Wagga Wagga | 35·80 | 60·2 | 74·4 | 46·7 | 19·7 | 111·0 | 20·0 | 26·0 |
| Dubbo ......... | 32·18 | 60·6 | 73·3 | 48·0 | 25·1 | 112·9 | 17·0 | 19·7 |
| Wentworth ... | 34·80 | 64·4 | 77·8 | 52·1 | 23·3 | 119·0 | 27·2 | 13·5 |
| Bourke ......... | 30·30 | 65·8 | 80·3 | 52·3 | 20·9 | 120·0 | 30·0 | 18·0 |

## No. 2.—Average Meteorological Conditions of Sydney for Each Month :—

| | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Yearly Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Average reading of barometer at 32° Fahrenheit and mean sea-level. .......................... | 29·919 | 29·954 | 30·048 | 30·048 | 30·080 | 30·078 | 30·091 | 30·086 | 30·033 | 29·998 | 29·963 | 29·889 | 30·016 |
| Mean temperature .............................. | 71·1 | 70·6 | 68·9 | 64·6 | 56·0 | 54·3 | 51·9 | 54·0 | 56·1 | 63·2 | 66·1 | 69·4 | 2·5 |
| Average reading of maximum thermometer ...... | 78·1 | 77·0 | 75·4 | 71·3 | 65·2 | 61·2 | 59·3 | 62·3 | 66·5 | 71·6 | 74·1 | 77·1 | 69·9 |
| Average reading of minimum thermometer ...... | 64·2 | 64·2 | 62·6 | 58·0 | 52·2 | 48·8 | 45·1 | 46·8 | 50·5 | 55·5 | 58·6 | 62·2 | 55·7 |
| Mean temperature of sea water .................. | 71·1 | 71·6 | 70·8 | 68·5 | 64·7 | 60·4 | 57·7 | 57·5 | 60·0 | 63·3 | 66·7 | 69·3 | 65·1 |
| Greatest monthly rainfall ......................... | 10·68 | 18·56 | 18·70 | 25·43 | 12·55 | 14·25 | 11·95 | 12·77 | 10·00 | 24·69 | 11·13 | 7·80 | Max. 25·43 |
| Least monthly rainfall .......................... | 0·57 | 0·53 | 0·85 | 0·06 | 0·18 | 0·27 | 0·06 | 0·20 | 0·12 | 0·07 | 0·14 | 0·39 | Min. 0·06 |
| Average monthly rainfall......................... | 4·03 | 5·30 | 4·94 | 6·70 | 5·05 | 5-28 | 4·28 | 2·02 | 2·56 | 3·44 | 3·11 | 2·77 | 50·05 |
| Average number of days' rain .................. | 13 | 14 | 15 | 14 | 13 | 13 | 12 | 11 | 11 | 13 | 12 | 11 | 152 |
| Average monthly evaporation .................... | 6·39 | 4·69 | 4·21 | 2·69 | 1·84 | 1·54 | 1·84 | 2·66 | 3·98 | 5·65 | 6·55 | 7·37 | 48·37 |
| Average monthly ozone.............................. | 4·5 | 4·60 | ·49 | 5·1 | 4·7 | 5·6 | 5·2 | 5·0 | 5·4 | 5·4 | 5·1 | 4·7 | 5·04 |

# PART V.

## Geological Formation.

Classification of rocks.

THE geology of the Colony has been ably treated by various learned scientists, and this work is being continually added to by Mr. W. C. Wilkinson, the present eminent Government Geologist. To the Rev. W. B. Clarke we are indebted for the first systematic classification of the various sedimentary formations found in New South Wales. These were classified by him as follows :—

| | | |
|---|---|---|
| Palæozoic : | Silurian | |
| | Devonian | |
| | Carboniferous | |
| | Permian. | |
| Mesozoic : | Triassic | |
| | Jurassic | |
| | Cretaceous. | |
| Cainozoic : | Tertiary | Miocene |
| | | Pliocene |
| | Post Tertiary | Post Pliocene |
| | | Recent. |

Palæozoic formation.

*Palæozoic.*—This formation extends throughout almost the whole eastern portion of the Colony, the rocks of the upper Silurian age principally occurring on the western watershed of the main Dividing Range, in the country where the Murrumbidgee, Lachlan, and Abercrombie Rivers rise. They appear on the eastern watershed, along part of the coast near Bateman's Bay, and, striking inland, are found in the basin of the Clyde, and the upper valley of the Shoalhaven.

The upper Silurian rocks extend as far north as Mudgee, where they are overlaid by the Carboniferous strata of the Hunter Valley, and by the belt of volcanic rocks extending along the Liverpool Range. They reappear further north, in the upper valley of the Macleay River, on the east slope, and in the basin of the Namoi, on the west of the Dividing Range. The Silurian rocks consist of sandstone, slate, and limestone, and exhibit evidence of metamorphism, particularly in the country around Bathurst and Hill End.

**Limestone.**

Limestone beds, of enormous extent, are scattered throughout this formation. These are chiefly composed of crinoids and corals, which outcrop prominently in the Wellington District, near Molong and Gulgong, at Tuena, and also in the Murrumbidgee District. In the limestone formations are found magnificent caves, such as the Wellington, Wiambene, and Fish River, or Jenolan Caves, the fame of which has spread even beyond the confines of Australia. Rocks of the Devonian age also exist near Rydal, where Mr. C. S. Wilkinson has measured a section of strata showing a thickness of not less than 10,000 feet.

**Carboniferous Deposits.**

The carboniferous formations occupy the whole valley of the Hunter, and of its chief tributary the Goulburn, on the east slope of the main range. They are also found on the opposite slope, in the upper valley of the Castlereagh, and along the edge of the great tertiary depression which the Upper Darling drains. They appear also on the south coast, at Bulli and Coal Cliff, extending southwards to Bateman's Bay, and embracing the basins of the small rivers between the Clyde and the Shoalhaven, as well as the lower valley of the last named river. Cut off by the high coast range, the formation reappears at Marulan and Berrima, again in the valley of the Cox River, at Lithgow Valley, and at Capertree River, thus forming a distinct connection with the great series of the Hunter.

The lower coal measures are included in the upper carboniferous series, and contain many seams of workable coal, some of remarkable thickness. These are situated principally in the lower valley of the Hunter River, comprising amongst others the Greta, Anvil Creek, and West Maitland seams. These seams are over-topped and underlaid by conglomerate and sandstones, of great thickness, the strata of this age being estimated by Mr. Wilkinson to be 10,000 feet thick.

Coal seams.

The seams in the Newcastle coal-fields, as well as those in the Illawarra and coast districts above and below Jervis Bay, belong to the upper coal measures, in which also are included the Berrima and Lithgow seams. They appear frequently, as in the case of the last named, at great elevation above the sea, and owing to their almost horizontal strata are worked with great facility.

The coal-bearing strata extend as far as the upper valley of the Castlereagh, thence northward, as already mentioned, along the edge of the great tertiary series, to Queensland, in which colony they reappear at a considerable elevation.

*Mesozoic.*—To this period belong the Hawkesbury and Wianamatta series, which overlay the carboniferous formation of that part of the country through which the Hawkesbury, and its principal tributaries flow. It is in this formation that the wonderful gorges of the Blue Mountains, and the beautiful harbours of Port Jackson, Port Hacking, and Broken Bay occur. The rocks are of warm yellow sandstone, and the thickness of the strata is estimated at about 1,000 feet.

The Wianamatta series.

The Wianamatta series extend round the metropolis and cover a space in the shape of an irregular triangle, the angular points of which rest at Picton on the south, Richmond on the north, and Sydney on the east. The beds are composed of fine sedimentary deposits of argillaceous shales, and are of comparatively little thickness. They appear to have been deposited in hollows worn by denudation out of the sandstone, on which they directly rest.

To the Mesozoic period belongs also the basin of the Clarence River, the strata of which consist of sandstone, shales, and conglomerates, intersected by occasional coal seams. The extent of the series, distinctively known as the Clarence, is considerable, stretching as it does along the coast from the Tweed to Red Head, and inland some 50 miles.

Cretaceous formations.

The Cretaceous formations occupy the north-western part of the Colony, extending from the Darling westward, towards the north-west corner of the Colony. Water-bearing strata have been reached at depths varying from 300 feet to 600 feet, and large quantities of water have been obtained. The existence of subterranean water throughout this extensive region has been practically demonstrated, and it remains for the settlers to avail themselves of the stores with which nature has charged her reservoirs in the ages that have long since been counted out.

Artesian water

Of late years the Department of Mines has had at work in different parts of the Colony a number of diamond and other kinds of drills, and water augers. Bores have been put down, wells sunk, and artesian supplies obtained in the cretaceous formations in the counties of Killara, Landsborough, and Barrona. One of these wells, sunk to the depth of 144 feet, furnishes daily a supply of 60,000 gallons, and another, only 49 feet in depth, throws up 20,000 gallons per day of excellent fresh water.

Cainozoic formation.

*Cainozoic.*—To this formation belongs the greater portion of the central and western districts of the Colony. It therefore embraces the valleys of the great western rivers, and their chief tributaries. The formation is, however, intersected by a broad belt chiefly of Silurian rocks, extending across its centre, from the Bogan River towards the Great Barrier Range, on the further side of the Darling. Large patches of Devonian formation are also met with in the same region. Making these deductions, the tertiary formation covers more than a third of the whole Colony. The vast alluvial plains were formed during the Pliocene and Post Pliocene periods. The alluvial deposits are of variable thickness, sometimes shallow, but in the great plains, between the main rivers which intersect the country, the deposits are of very great depth.

### *IGNEOUS AND METAMORPHIC FORMATION.*

The area occupied by this formation comprises one-eighth of the Colony—the principal rocks belonging to the series consisting of varieties of granite, porphyry, diorite, and serpentine.

Granite formation.

The granite formation occurs principally in the northern and southern masses of the great dividing chains, but is found outcropping throughout the Silurian deposits, which cover so large a part of the centre of the Colony.

Diorite and basalt occur principally in the country between the Macleay and the Manning Rivers, and on both slopes of the Liverpool Range, between the upper waters of the Namoi and Macleay, and divide the upper Silurian and Carboniferous deposits of the eastern and western watersheds.

Serpentine is found scattered in different parts of the Colony, chiefly at Gundagai, Bingera, Lucknow, and Port Macquarie.

The granites, porphyries, and diorite rocks have been recognized as belonging to the Palæozoic age, whilst the volcanic rocks, basalts, and others, are contemporaneous with the tertiary series.

# PART VI.

## Mines and Minerals.

THE progress of the Colony in mining from the early days of settlement even for sixty years, viewed in the light of later events, seems painfully slow, and somewhat uncertain. Yet her enterprising colonists must have been conscious of the vast heritage, which was to be the lot of Australia, for on no other supposition can their sacrifices and exertions be understood. To the people of mother countries, this was practically an unknown land, and it was not till the story of the gold discoveries was noised abroad, that the possible importance of Australia was in any way realized.

Gold-mining.

Gold-mining was but for a short time the chief industry of these colonies, even in the wonderful years which succeeded the memorable discovery of Hargraves. Now, amongst the minerals obtained in New South Wales, it yields in value to coal and tin; whilst compared with that of pastoral and agricultural produce the value of gold procured is inconsiderable. The discovery of gold, nevertheless, made Australia a nation.

Immigration due to gold discovery.

The current of immigration which set towards Australia on the gold discoveries becoming known has never ceased. Thousands of men in the prime of life, attracted to these shores by the hope of fortune easily acquired on the fields of the Turon and Bendigo, seeing patient industry everywhere rewarded, remained to share the general prosperity, and those who came to dig for gold readily turned their attention to other, if less exciting, pursuits.

New South Wales not so much affected by the discovery of gold as Victoria.

The settlement of New South Wales has not been affected to the same extent by the gold discovery as Victoria, yet the number engaged in actual search for the precious metal was at one time considerable. This number has gradually decreased, as the fields have been despoiled of the treasures contained in their easily worked alluvial deposits. Gold-mining now necessitates the expenditure of capital, for the erection of plant and gold-saving machinery; and the miner, whose stock-in-trade of gold-digging appliances consisted solely of a pick, a shovel, and a tin dish, has had, in the great majority of instances, to seek other fields for his labour, which he has found in the variety of resources with which nature has endowed this rich territory. Some have sought the cities, and others the fields, returning gradually to their earlier occupation as artizans or agriculturists. Not a few, however, remained true to their miners' instincts, and have since assisted in developing other branches of the mining industry. In the early days a miner was left entirely to his own resources; but scientists have now come to his aid, and have indicated the localities where in all likelihood his researches will be attended with success; and to-day the mineral industry in New South Wales is still in a flourishing state. Though certain metals, such as copper, are not now realizing as high prices as they did some years ago, other metals are in greater demand, whilst the ores of manganese, antimony, or other inferior metals, which a few years ago were not sought after, are now being extracted; and shipped to the markets of Europe. Thus the mining industry maintains a fair proportion of the people of the Colony in employment at remunerative rates; and if to the search for metallic ores is added the extraction of coal and shale, it will be found that minerals and metals contribute largely to the wealth of the country, and the employment of its people.

Persons engaged in mining.

The following table gives the approximate number of persons actually engaged in the various departments of mining during each of the past six years.

Number of persons engaged in mining.

No. 3.—Approximate Number of Persons engaged in Mining for Gold, Silver, Copper, Tin, Iron, Coal, and Shale, during the six years ended 1886 :—

| Persons engaged mining for— | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|
| Gold | 9,056 | 9,215 | 6,750 | 6,548 | 5,911 | 6,617 |
| Silver and silver lead | * | * | * | * | 1,513 | 1,297 |
| Copper | 1,177 | 1,142 | 1,913 | 1,746 | 1,000 | 622 |
| Tin | 4,530 | 5,146 | 4,100 | 2,850 | 3,395 | 2,814 |
| Iron | * | * | * | * | 180 | 120 |
| Coal | 4,297 | 4,647 | 5,481 | 6,227 | 7,097 | 7,847 |
| Shale | 231 | 317 | 293 | 116 | 324 | 100 |
| Total | 19,291 | 20,767 | 18,537 | 17,487 | 19,420 | 19,417 |

* No estimate made.

Quantity and value of mineral products of the Colony.

The population thus actually engaged in mining during the year 1886 numbered 19,417, making with their families a population of about 90,000, depending directly upon the yield of the mines.

An idea may be gathered from the summary table hereunder of the vast amount of wealth already derived from the mines of the Colony, and the quantity and value of the products of the various minerals since their first discovery.

No. 4.—Quantity and Value of Mineral Products of the Colony up to the end of the year 1886 :—

| Minerals. | Quantity. | Value. |
|---|---|---|
| | | £ |
| Gold | 9,774,806·80 oz. | 36,469,138 |
| Silver | 2,745,729·87 ,, | 580,428 |
| Coal | 37,022,410 tons | 18,352,669 |
| Shale | 441,242 ,, | 995,413 |
| Tin (ingots) | 80,409 ,, | 6,595,102 |
| ,, (ore and regulus.) | 16,480 ,, | 807,354 |
| Copper (ingots) | 74,669 ,, | 4,859,390 |
| ,, (ore and regulus) | 3,461 ,, | 104,860 |
| Iron | 34,431 ,, | 250,922 |
| Antimony (metal) | 372 ,, | 65,598 |
| ,, (ore) | 3,176 ,, | |
| Bismuth | 68 ,, | 13,880 |
| Silver lead ore (ore) | 16,405 ,, | 651,511 |
| ,, (metal) | 190 ,, | |
| Sundry minerals | ............... | 25,922 |
| | Total value | £69,772,187 |

To Dr. Liversidge, Professor of Chemistry at the Sydney University, we are indebted for a description of the distribution of the minerals found in the Colony. They have been classified by him as metallic and non-metallic minerals, and subdivided into classes, the importance of each of which will presently appear.

### *METALLIC MINERALS.*

1. *Gold.*—Amongst the metallic minerals found in the Colony, gold occupies a foremost place, both on account of the quantity which has been, and is now being raised, and of the influence which its discovery has had on the settlement of the country.

Gold.

The date of the discovery of gold in New South Wales was for a long time the theme of much controversy, and the question as to the original discoverer a long disputed one. It is now agreed, however, that the existence of gold was known to the authorities during the early days, when the Colony was a convict settlement, but for obvious reasons of State the matter remained secret. The first authentic record of the discovery of gold is contained in an extract from Assistant Surveyor James McBrian's Field-book, bearing date 16th February, 1823, in which the following is stated :—"At 8 chains 50 links to river, and marked gum-tree—at this place I found numerous particles of gold, in the sand and in the hills convenient to the river." The river referred to is the Fish River, at about 15 miles from Bathurst, not far from the spot to which the first gold-rush was made, twenty-eight years afterwards.

First mention of gold.

In 1839, Count Strzelecki found gold in the Vale of Clwydd, and conveyed the information of the discovery to Governor Gipps, but he was requested to keep the matter secret, as the knowledge of the existence of gold might imperil the safety and discipline of the settlement. The Rev. W. B. Clarke found gold in 1841 in the Macquarie Valley and the Vale of Clwydd, and expressed his belief that the precious metal would be found abundantly dispersed throughout the territory.

Actual discovery of payable gold.

But it was not until the year 1851 that payable deposits were proved to exist in New South Wales, and this important discovery was due to Mr. E. Hammond Hargraves, who had returned some time previously from California, and who pointed out to the Government the localities in which he had discovered payable deposits of alluvial gold, viz., at Lewis Pond and Summer Hill Creek, in the districts of Bathurst and Wellington. Prospecting operations followed in the neighbourhood, with the result of which every one is now familiar. A few weeks later the rich deposits of Ballarat, Mount Alexander, and other gold-fields, were discovered in Victoria; and the world witnessed a gold-rush from all parts of the earth to these colonies, similar to that which some years before had taken place to California. The probable effects of the gold-rush were not clearly seen at the time, either here or in the home countries, but it has resulted in the creation of states, the future of which is surrounded with the brightest promise.

Alluvial gold.

Native gold is the only true mineral species of gold which has, so far, been found in New South Wales. It occurs in alluvial deposits, in which it is easily worked. Alluvial diggings have always attracted the greater number of miners, as the precious metal is dug out without costly appliances. But, however rich they may be, these deposits are very soon worked out, as their area is generally of limited extent. The miners engaged in testing alluvial deposits for gold form a floating population, ready at any moment to emigrate from one colony to another. In the alluvial deposits gold is found associated with a variety of minerals; it also occurs in the shape of grains and nuggets, water-worn in appearance, and some of considerable size. Though in New South Wales no nuggets were found of so extraordinary a size as in the neighbouring Colony of Victoria, still some very splendid specimens of that gold formation have been unearthed at various times.

Remarkable nuggets and their value.

Thus in July, 1851, a mass of gold was found on the Turon River gold-fields which weighed 106 lb., or 1,272 oz. In November, 1858, at Burrandong, near Orange, another nugget was found which, when melted at the Sydney Mint, gave 1,182 oz. 6 dwt. of pure gold, of the value of £4,389 8s. 10d. A third nugget, called the Brenan, was sold in Sydney in 1851 for £1,156. In 1880 and 1882, several nuggets which were unearthed at Temora weighed from 59 to 139 oz.

Further discoveries probable.

Although the alluvial deposits discovered in the early days have now been practically abandoned, and are considered as worked out, there is ample evidence that the surface of the country has been merely scratched. Mr. Wilkinson, the Government Geologist, estimates that the extent of country covered by certain formations, in association with which gold is always found to occur, is over 70,000 square miles, whilst the precious metal has been also found in formations where its presence had never before been suspected. A considerable portion of this area, which is equal to nearly one-fourth of the whole surface of the colony, has never been touched by the pick of the miner.

Extent of Gold-fields.

The same authority points out the great economic importance of the tertiary rocks, as they have hitherto yielded the chief supply of gold and tin extracted in the Colony, and will, without doubt, continue to do so. On this head he further remarks :—

"The distance between the Albert Gold-field and the Delegate Gold-field being 672 miles, and between the latter and the Ballina Gold-field being 600 miles, it will be seen that gold-fields are distributed over the greater part of the Colony. Notwithstanding that the search for gold has been carried out for thirty-five years, new fields and new deposits are continually being discovered, some of them in localities which were supposed to have been thoroughly examined. Some of the fields recently discovered promise to equal in extent and richness any discovered in the early days, whilst our oldest fields, though apparently exhausted, as far as the miner unaided by capital and skill is capable of exhausting them, yet contain deposits of gold which will yield a rich harvest to the skilled miner who shall bring to bear upon them appliances such as are being successfully employed elsewhere."

Want of appliances in early days.

It is a notorious fact among the mining public that many mines which gave promise of handsome results were abandoned in the early days, simply because the appliances at hand were not sufficiently powerful or well directed to save the gold contained in the foreign matter with which it was found associated. At Wattle Flat, on the Turon River, and at many places on the older gold-fields, gold was found contained in great deposits of iron pyrites, called by the miners mundic, which have since been proved to be in a very high degree payable. The claims were abandoned some years ago, as the miners lacked the necessary knowledge or skill to obtain from the pyrites the whole of the gold they contained. Since then other and improved methods of extraction have been invented in America, in France, and in Germany, and a rich harvest awaits the miner who shall apply modern knowledge and appliances to the development of this industry.

The abandonment of a gold-field is not, however, always a loss to the country. After the excitement has died out, the digger makes room for the agriculturist, and resources of a more permanent character are developed, in parts of the Colony which but for the former would have been unknown, and but for the agriculturist would have remained a wilderness.

Formation in which gold occurs.

Gold is also found in quartz veins, occurring in older and metamorphic rocks, and even more frequently in argillaceous slates, chloritic, and talcose schists, and also in granite and porphyry. Vein gold is associated more commonly with iron pyrites, though found with copper and silver ores, and occurring also in serpentine and asbestos. But the extraction of gold from quartz veins requires the erection of extensive machinery and gold-saving appliances, involving an outlay of capital such as the ordinary miner seldom possesses. Quartz mining is generally carried out by companies, many of which regularly pay handsome dividends to their shareholders.

Richness of gold veins.

Professor Liversidge, in his report on the Mines and Minerals of New South Wales, cites the following example of the richness of gold veins:—

"A telegram from Hill End on February 1st, 1873, states that on Beyers and Holtermann's mine 1·02 cwt. of gold had been raised from 10 tons of stuff. From the same mine a slab of vein stuff and gold weighing 630 lb. was exhibited, which was estimated to contain £2,000 worth of gold. Many other similar rich blocks were also shown. The Mint returns for the gold from 415 tons of vein stuff from this mine, were 16,279·63 oz., value £63,234 12s., in 1873. Krohman's Company, also at Hill End, raised in 1873, 436 tons 2 cwt. of stuff, for which the Mint returns were 24,079 oz. 8 dwt. of gold, value £93,616 11s. 9d."

Gold in coal measures.

Gold has also been found in the coal measures, and carboniferous strata. The Rev. W. B. Clarke detected it in the Hawkesbury sandstone formation, on the north side of Sydney Harbour, and he also mentions that it is found distributed through the sand at the mouth of the Richmond River.

Along the southern part of the coast of New South Wales gold has been found near the shore in the sand washed by the waves of the Pacific Ocean, whilst at Bermagui, and in the district extending between Moruya and Eden, important discoveries of the precious metal have also been made.

It would be impossible to name all the parts of the Colony in which gold is found, as it appears throughout the whole territory, and there is ample evidence that deposits of the precious metal exist which will for many years to come offer to the prospector or the miner a profitable field of employment.

Production of gold.

The following table shews the quantity and value of the gold coined and exported yearly since 1851.

No. 5.—Quantity and Value of Gold, the produce of the Colony, coined or exported to the close of the year 1886:—

| Year. | Weight. | Value. | Year. | Weight. | Value. |
|---|---|---|---|---|---|
| | oz. | £ | | oz. | £ |
| 1851 | 144,120·88 | 468,336 | 1869 | 252,130·14 | 967,625 |
| 1852 | 818,751·23 | 2,660,946 | 1870 | 240,401·86 | 916,409 |
| 1853 | 548,052·79 | 1,781,172 | 1871 | 321,468·70 | 1,232,011 |
| 1854 | 237,910·70 | 773,209 | 1872 | 434,100·23 | 1,634,821 |
| 1855 | 170,145·73 | 613,148 | 1873 | 360,849-97 | 1,389,705 |
| 1856 | 183,946·36 | 666,055 | 1874 | 270,710·12 | 1,038,844 |
| 1857 | 161,043·26 | 616,712 | 1875 | 229,385·55 | 881,480 |
| 1858 | 280,557·93 | 1,082,865 | 1876 | 155,166·37 | 581,689 |
| 1859 | 323,984·02 | 1,237,662 | 1877 | 122,619·24 | 463,130 |
| 1860 | 381,613·96 | 1,445,158 | 1878 | 117,977·88 | 423,184 |
| 1861 | 459,879·26 | 1,771,855 | 1879 | 107,640·38 | 399,187 |
| 1862 | 619,909·71 | 2,860,383 | 1880 | 116,750·52 | 434,641 |
| 1863 | 467,399·05 | 1,791,534 | 1881 | 145,532·05 | 550,111 |
| 1864 | 341,254·12 | 1,304,735 | 1882 | 129,233·28 | 491,594 |
| 1865 | 364,540·63 | 1,390,803 | 1883 | 122,256·58 | 452,611 |
| 1866 | 287,534·29 | 1,103,246 | 1884 | 105,933·43 | 390,229 |
| 1867 | 269,407·35 | 1,043,458 | 1885 | 100,667·16 | 366,388 |
| 1868 | 258,773·41 | 1,003,002 | 1886 | 91,854·00 | 330,779 |
| | | | Total | 9,731,213·00 | 36,058,717 |

This table shows that the production of gold in the Colony of New South Wales has, since the year 1872, considerably decreased. This decrease is explained by the fact that the rich alluvial deposits discovered in the early days have been exhausted, and that other resources of a more permanent nature are being developed. These latter offer to the labouring classes employment of a steadier nature, certainly without the chances of accumulating rapid fortunes, but with more security against loss.

Alluvial gold-mining.

The principal seats of alluvial gold-mining are the Bathurst and Mudgee districts, and the country watered by the various feeders of the Upper Lachlan, and also in the Tumut and Adelong and Braidwood districts. In 1880, the Temora gold-fields, in the Murrumbidgee district, and about 30 to 40 miles from the southern inland town of Wagga Wagga, were discovered, and have been in a flourishing condition ever since. In the north of the Colony, in the New England district, on the coast, in the county of Gloucester, and in the extreme north-west, at Mount Poole and Mount Brown, the gold-fields sustain a considerable population of miners.

The system of hydraulic sluicing is only in vogue in two or three mines, in the Kiandra district, where extensive reservoirs have been formed, and the face of the rocks attacked, in various places, but the result of the working of these mines is not yet known.

Quartz Mining.

The principal quartz veins are situated near Bathurst, in the Hill End district, and the Mudgee and Cudgegong gold-field, which latter has already yielded 1,072,752 oz., or over 32 tons of gold, valued at £4,162,550. The geological surveyor, who recently examined this field, reported that its resources are far from being exhausted. At Adelong, Tumut, Jindera, and near Gundagai, reefs are also profitably worked, as well as on the south coast of the Colony and in the north-eastern districts at Fairfield.

As already noticed, in the early days many mines were abandoned by reason of the want of proper appliances for saving the gold. Within the last four years, however, some of these mines have been reopened, and a revival of mining is anticipated in such districts.

The dry weather of the past two or three years has had an important influence on alluvial gold-mining, for large areas of payable ground are now deserted, owing to the want of water for sluicing purposes. To this cause may also, to a certain extent, be attributed the decrease in the production of the last few years.

Authority to dig.

The authority to dig a mine for gold costs only ten shillings a year, and entitles its possessor not only to take up ground for mining, but also to occupy, in a town, a quarter of an acre, or, outside a town, an acre of land for a business site. Mineral licenses are also obtainable at a cost of 20s. per year, entitling the holder to from 40 to 640 acres of Crown Land, for the purpose of searching for minerals other than gold.

Extent of mining enterprise.

In 1886 1,574 mineral leases, 329 gold leases, 1,471 mineral licenses, 10,748 miners' rights, and 2,035 business licenses, were granted. The steam-engines employed in quartz-mining numbered 110, with an aggregate of 1,127 horse-power. There were also eighty-three crushing machines, and 616 stamp-heads. In alluvial mining there were employed sixteen steam engines, whose aggregate equalled 151 horse-power.

During the year 1886, the number of persons more or less regularly employed, in various parts of the Colony, in gold-mining was 6,617, of which 5,750 were Europeans and 867 Chinese. There were 2,675 persons engaged in quartz-mining, and 3,942 in the alluvial diggings.

Gold sent to mint.

The quantity of gold received at the Sydney Mint for coinage, the produce of New South Wales, amounted to 91,853 oz., of the gross value of £330,779, the average price per oz. being £3 12s. 8d. The western districts produced 38,752 oz., the southern, 18,763 oz., the northern 7,611 oz., and the localities not described, 26,727 oz.

The average weight of gold obtained by each miner was 14 oz. 19·73 dwt., valued at £54 2s. 7d., but of the number nominally engaged in gold-mining not a few follow other pursuits during a portion of the year.

Attempts have been made to ascertain as far as practicable the average yield per ton of alluvium treated, and per ton of quartz crushed, for the whole colony. As regards alluvial mining, the figures given below can only be considered as an approximation, as they only represent the results of a few washings, but the average yield of gold per ton of quartz is calculated from

Yield of alluvium and quartz.

information of a more complete nature. In both cases the average is high and very satisfactory, being 8 dwt. 7·64 gr. per ton of alluvium treated, and 12 dwt. 9·67 gr. per ton of quartz crushed.

No. 6.—Statement of Average Yield of Gold from Alluvial mines in 1886 :—

| District. | Quantity. | Average per ton. | | | Yield of gold. | | |
|---|---|---|---|---|---|---|---|
| | Tons. | oz. | dwt. | gr. | oz. | dwt. | gr. |
| Tumut and Adelong ...... | 6,358 | 0 | 5 | 6·23 | 1,672 | 0 | 0 |
| Lachlan ................ ..... | 3,838 | 0 | 16 | 0·40 | 3,073 | 2 | 0 |
| Albert ........................ | 2,506 | 0 | 4 | 16·63 | 538 | 0 | 0 |
| Totals and average ... | 12,702 | 0 | 8 | 7·64 | 5,283 | 2 | 0 |

No. 7.—Statement of Average Yield of Gold from Quartz mines in 1886 :—

| District. | Quantity. | | | Yield of Gold. | | | Average per ton. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tons | cwt. | qr. | oz. | dwt. | gr. | oz. | dwt. | gr. |
| Bathurst ........................ | 24,242 | 0 | 0 | 8,005 | 18 | 22 | 0 | 6 | 14·52 |
| Tambaroora and Turon...... | 3,111 | 0 | 0 | 1,254 | 18 | 7 | 0 | 8 | 1·62 |
| Lachlan ........................ | 6,609 | 0 | 0 | 10,076 | 7 | 1 | 1 | 10 | 11·83 |
| Southern ........................ | 2,816 | 0 | 0 | 2,238 | 13 | 0 | 0 | 15 | 21·58 |
| Inverell and Adelong ...... | 2,963 | 0 | 0 | 2,246 | 13 | 0 | 0 | 15 | 3·95 |
| Peel and Uralla ............... | 1,152 | 0 | 0 | 1,316 | 3 | 0 | 1 | 2 | 20·39 |
| Hunter and Macleay......... | 210 | 0 | 0 | 265 | 10 | 18 | 1 | 5 | 6·94 |
| Clarence and Richmond ... | 1,670 | 0 | 0 | 352 | 18 | 15 | 0 | 4 | 5·44 |
| New England.................. | 264 | 3 | 0 | 338 | 18 | 0 | 1 | 5 | 15·64 |
| Albert ........................ | 40 | 0 | 0 | 23 | 0 | 0 | 0 | 11 | 12·00 |
| Mudgee ........................ | 2,590 | 0 | 0 | 2,201 | 10 | 0 | 0 | 17 | 0·00 |
| Totals and average ... | 45,667 | 3 | 0 | 23,320 | 11 | 0 | 0 | 12 | 9·67 |

Silver.

2. *Silver.*—Up to the year 1882, the quantity of silver raised in New South Wales was very small, but in that and the following years extensive discoveries of this metal, associated principally with lead and copper ore, were made in various parts of the Colony, notably at Boorook, in the New England district, and, later on, at Sunny Corner, near Bathurst, and at Silverton, on the Barrier Range, in the western district. Unfortunately smelting operations in the latter district were retarded, owing to the serious

drought which prevailed during the two years following the discovery of the lodes. In 1883 and 1884, however, the principal difficulties were surmounted; smelting furnaces were erected on the most modern principles, both at Sunny Corner and at Silverton, and considerable shipments of the metal were made. In the latter district the argentiferous deposits cover a very large area of territory, and the mineral is found associated with lead and gallena ores.

The Broken Hill Silver Mines.

During the years 1885, 1886, and 1887 the field of Silverton has attained an immense value. Discoveries have been made along the Barrier Range at Broken Hill, Umberumberka, The Pinnacle, and on many other points; and the fame of the Silverton mines has spread over the whole of Australia. But the richer deposits so far worked are those held by the now celebrated Broken Hill Proprietary Company. This mine was discovered by Mr. Charles Rasp, then a boundary rider on Mount Gipps run, towards the end of September, 1883. It was originally held by a small syndicate, but was formed into a public company in 1885, with a limited capital of 16,000 shares of the nominal value of £19 each paid up. Work was at once started on a large scale, and discoveries of extremely rich deposits of silver ore have since been almost of daily occurrence. An idea may be gathered of the value of this mine—which now employs 680 hands, and where a complete smelting plant on the latest and most approved principles has been erected—when it is known that on the 10th September of the present year 1887 the shares, in the Adelaide market, were quoted at £195 each, which would place the capital value of this mine at £3,120,000. During the year 1886 the company raised and treated 14,750 tons of ore, from which 36½ tons of silver, valued at £228,519, were obtained. Since that time new furnaces have been added to the smelting plant and the output of the mine increased. During 1886 a sum of £64,000 was paid in dividends, and over £160,000 have been paid from August, 1886, to August, 1887, besides a portion of the property, the value of which was estimated at £500,000, being divided among the shareholders, who are now offering it to the public in the London and Australian markets, at the enormous capital of £1,000,000. The Umberumberka Company, the Day Dream, and The Pinnacle mines may also be considered as first-class mines, and the future of the Silverton district as a mining centre is most promising. The people of South Australia were not slow to realize the advantages which they would obtain by attracting at once towards their capital the traffic of a region of such immense richness. They extended at once their railway lines to the border; and since then a tramway has been laid down through New South Wales territory, which places Silverton and Adelaide in direct communication with each other by rail. Doubtless these mines are destined to rival in wealth and fame the celebrated Comstock and Virginia lodes of North America.

Future of Silverton.

In the course of the year 1885, several silver lodes were discovered, in various parts of the Colony—in the New England district, in the north, near Moruya, in the south, and also in the extreme west, in the Albert District, as well as at Burrawong, in the Berrima District, on the table-land.

Richness of Silver Mines.

As an example of the richness of some of the mines, it may be mentioned that, in the year 1884, the Golden Age Mine, at Boorook, which had been worked to a depth of 300 feet, gave the following results :—

600 tons of ore raised
390 ,, ,, treated
yield 34,000 oz. silver
,, 234 ,, gold.

In 1885, the Under-Secretary for Mines reported at great length on the silver-mining industry of the Colony, and, amongst other statements worthy of note the following may be quoted :—

"At Mitchell, the Sunny Corner Mine, consisting of 205 acres, upon which £40,000 has been expended on furnace and appliances for treating the ores locally, employs about 502 men, the total output of ore was 25,000 tons; the yield of silver during the year was 20 tons 8 cwt. 0 qr. 24 lb., of the estimated value of £160,000; the gold contained in the silver from this mine brings its value up to 5s. per oz."

Silver exported.

The value of the silver and silver lead ore exported up to the end of 1886, will be seen from the following table:—

No. 8.—Value of Silver and Silver Lead Ore exported 1876-86:—

| Year. | Silver. | Silver and Lead. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| 1876 | 15,456 | 1,392 | 16,848 |
| 1877 | 6,673 | 325 | 6,998 |
| 1878 | 13,291 | 258 | 13,549 |
| 1879 | 18,071 | 535 | 18,606 |
| 1880 | 21,871 | 890 | 22,768 |
| 1881 | 13,026 | 1,625 | 14,651 |
| 1882 | 9,024 | 360 | 9,384 |
| 1883 | 16,488 | 2,075 | 18,563 |
| 1884 | 19,780 | 241,940 | 261,720 |
| 1885 | 159,187 | 107,626 | 266,813 |
| 1886 | 197,544 | 294,485 | 492,029 |
| Total ......... | 490,418 | 651,511 | 1,141,929 |

Increase in production of silver.

It will be seen that the production of silver has, during the past few years, considerably increased, but sufficient time has hardly elapsed since the important discoveries of silver deposits were made to enable them to be properly developed; and it may be confidently expected that, as new mines are being opened, and the first mines discovered are being brought into full working order, the exports of this metal will rapidly increase. The average value of silver and lead won, per miner engaged, during 1886, amounted to £379 7s.

Tin.

3. *Tin.*—This mineral occurs principally in the granite and basaltic country in the extreme north of the Colony, near Tenterfield and Vegetable Creek, and in other districts of New England.

Tin has also been discovered in other parts of the Colony, and quite lately in the Barrier Ranges at Poolamacca, but no other fields, besides those already mentioned, have as yet received any practical development. The deposits occur in the shape of stream and lode tin, and are worked by European and Chinese miners.

Output of tin mines.

The opening of the tin-fields of New South Wales took place in the year 1872, and up to the year 1882 the output from the mines, and the export of tin, increased in a remarkable ratio, as illustrated in the statement below.

No. 9.—Quantity and Value of Tin, the produce of the Colony, exported since the opening of the tin-fields in 1872 :—

| Year. | Ingots. | | Ore. | | Total Value. |
|---|---|---|---|---|---|
| | Quantity. | Value. | Quantity. | Value. | |
| | Tons cwt. | £ | Tons cwt. | £ | £ |
| 1872 | 47 0 | 6,482 | 849 0 | 41,337 | 47,819 |
| 1873 | 911 0 | 107,795 | 3,660 0 | 226,641 | 334,436 |
| 1874 | 4,101 0 | 366,189 | 2,188 0 | 118,133 | 484,322 |
| 1875 | 6,058 0 | 475,168 | 2,022 0 | 86,143 | 561,311 |
| 1876 | 5,449 0 | 379,318 | 1,509 0 | 60,320 | 239,638 |
| 1877 | 7,230 0 | 477,952 | 824 0 | 30,588 | 508,540 |
| 1878 | 6,085 0 | 362,072 | 1,125 0 | 33,750 | 395,822 |
| 1879 | 5,107 2 | 343,075 | 813 15 | 29,274 | 372,349 |
| 1880 | 5,476 6 | 440,615 | 682 6 | 30,722 | 471,337 |
| 1881 | 7,590 17 | 686,511 | 609 6 | 37,492 | 724,003 |
| 1882 | 8,059 0 | 800,571 | 611 0 | 32,890 | 833,461 |
| 1883 | 8,680 1 | 802,867 | 445 4 | 21,685 | 824,552 |
| 1884 | 6,315 16 | 506,726 | 349 13 | 14,861 | 521,587 |
| 1885 | 4,657 18 | 390,458 | 534 18 | 25,168 | 415,626 |
| 1886 | 4,640 18 | 449,303 | 326 18 | 18,350 | 467,653 |
| Total ...... | 80,408 18 | 6,595,102 | 16,480 0 | 807,354 | 7,402,456 |

Importance of tin to the Colony

Tin has, it will be seen, contributed in a very considerable degree to the general development of the natural wealth of the Colony, and in point of value its aggregate production stands in the third place after gold and coal, while for some years past its yearly production has been even in excess of that of gold.

Value of tin exported.

From 1872 to 1882, when the tin-mining industry was at its greatest height and prosperity, the value of the mineral exported had increased from £47,819 to £833,461. In 1883 the production of the former year was nearly maintained, but since that time, owing to the protracted dry season, elsewhere referred to, which in many cases prevented mining operations, combined with the comparatively low price which the metal brought, the value of the output decreased to £415,626, or nearly 50 per cent., in 1885. Since then, however, the principal causes of the falling off in value have been removed, and the present satisfactory price has already induced a revival. The production of tin in the year 1886 shows a value of £467,653, or an increase of £52,027 on that of 1885. In the course of the year 1886, the price of this metal in the Home market exhibited a marked improvement. The quotation stood at £93 in the earlier part of the year, but at the close of the season the ruling price had reached £99 10s. per ton, thus showing a gain of £6 10s. during that period. The highest price obtained in the course of 1886 was quoted at £103 5s. per ton. It is also satisfactory to note that within the fourteen years which have elapsed since the opening of the tin-fields and the end of 1886, tin to the value of £7,402,456 has been exported from the Colony.

Copper.

4. *Copper.*—The principal deposits of this mineral are found in the central part of the Colony, between the Macquarie, the Bogan, and the Darling rivers. Deposits have also been found in the New England District, and likewise in the neighbourhood of Kiama, in the Illawarra District, and mines are worked in the Carcoar and Burrowa districts, as well as at Walcha, showing that the mineral is considerably diffused throughout the Colony.

Within the last few years, the very low price of copper has deterred many from embarking in operations which exhibited every appearance of success, and some of the mines which had been worked for many years were closed. Still, in spite of the low price of the metal, there is little doubt that, with the adoption of the more modern methods of smelting, which are now in almost general use in the principal centres of copper production—in Spain, France, England, California, and Chili—the rich mines of New South Wales could be made to show handsome results.

A third difficulty, common to other branches of the mining industry, lies in the great distance of some of the chief copper-mines from the port of shipment, and the consequent large cost of land-carriage. This last difficulty, however, will presently disappear, as the railway system is extended.

Price of Copper.

The prospect of an improvement in the price of this metal, unfortunately, does not appear very encouraging, and the English quotations continue to exhibit a tendency to maintain the low prices ruling in 1886, and even to further decrease. In 1872 copper realized as much as £108 per ton, whilst in December, 1886, the lowest price on record was touched, and only £38 7s. 6d. could be obtained for Chili bars. During the past three years, the price of Chili bars fluctuated between £58 7s. 6d., the highest quotation for January, 1884, and £38 7s. 6d., the lowest for December, 1886, the average prices for each of the successive years showing the following unsatisfactory state of the market:—

| | £ | s. | d. |
|---|---|---|---|
| Average for 1884 ... ... ... | 54 | 7 | 6 |
| ,, 1885 ... ... ... | 44 | 0 | 0 |
| ,, 1886 ... ... ... | 40 | 5 | 0 |

Future of copper-mining.

With a reduction in the cost of production and that of carriage, the copper lodes of New South Wales, which contain ores of a very much higher per-centage than those of many well-known mines worked at a profit in other parts of the world, ought to return most satisfactory results; and a revival of this important branch of the mining industry of the Colony may be confidently expected, as there appears to be no adequate reason for the persistent fall in the price of this metal in the Home markets.

Principal copper mines.

The more important mines are those of Cobar and Nymagee, situated in the Central Division, and within 80 miles of each other. The former employs over 500 men and boys; the deepest shaft is 564 feet, and the width of the lode from 2 to 50 feet. Nymagee employs a complement of 350 persons, and contains ores consisting of sulphurets and carbonates, the average percentage of copper obtained, being 11·42 per cent.

The following table shows the past and present state of the copper-mining industry.

No. 10.—Quantity and Value of Copper, the produce of the Colony, exported during each year, from 1858 to 1886:—

| Year. | Ingots. |  | Ore and Regulus. |  | Total value. |
|---|---|---|---|---|---|
|  | Quantity. | Value. | Quantity. | Value. |  |
|  | Tons. | £ | Tons. | £ | £ |
| 1858 | ...... | ......... | 58 | 1,400 | 1,400 |
| 1859 | 30 | 578 | ...... | ...... | 578 |
| 1860 | ...... | ......... | 43 | 1,535 | 1,535 |
| 1861 | ...... | ......... | 144 | 3,390 | 3,390 |
| 1862 | ...... | ......... | 213 | 5,742 | 5,742 |
| 1863 | 23 | 1,680 | 114 | 420 | 2,100 |
| 1864 | 54 | 5,230 | ...... | ...... | 5,230 |
| 1865 | 247 | 15,820 | 22 | 545 | 16,365 |
| 1866 | 255 | 18,905 | 23 | 1,885 | 20,790 |
| 1867 | 393 | 30,189 | ...... | 5 | 30,194 |
| 1868 | 644 | 23,297 | 172 | 4,000 | 27,297 |
| 1869 | 1,980 | 74,605 | 104 | 2,070 | 76,675 |
| 1870 | 994 | 65,671 | 6 | 60 | 65,731 |
| 1871 | 1,350 | 87,579 | 94 | 1,297 | 88,876 |
| 1872 | 1,035 | 92,736 | 417 | 13,152 | 105,888 |
| 1873 | 2,795 | 237,412 | 51 | 1,690 | 239,102 |
| 1874 | 3,638 | 311,519 | 522 | 13,621 | 325,140 |
| 1875 | 3,520 | 297,334 | 157 | 4,356 | 301,690 |
| 1876 | 3,106 | 243,142 | 169 | 6,836 | 249,978 |
| 1877 | 4,153 | 307,181 | 360 | 17,045 | 324,226 |
| 1878 | 4,983 | 337,409 | 236 | 7,749 | 345,158 |
| 1879 | 4,107 | 256,437 | 36 | 915 | 257,352 |
| 1880 | 5,263 | 359,260 | 132 | 4,799 | 364,059 |
| 1881 | 5,361 | 350,087 | 133 | 4,975 | 355,062 |
| 1882 | 4,865 | 321,887 | 93 | 2,840 | 324,727 |
| 1883 | 8,873 | 574,497 | 84 | 2,704 | 577,201 |
| 1884 | 7,286 | 415,601 | 19 | 578 | 416,179 |
| 1885 | 5,745 | 264,905 | 1 | 15 | 264,920 |
| 1886 | 3,969 | 166,429 | 56 | 1,112 | 167,541 |
| Totals ... | 74,669 | 4,859,390 | 3,459 | 104,736 | 4,964,126 |

5. *Iron.*—Iron is found widely diffused all over the Colony, but it is met with in greatest quantities in the mountain districts. At Lithgow, Wallerawang, Mount Lambie, and Mount Tomah, in the Blue Mountains, large deposits are known to exist, also at Berrima, Mittagong, Nattai, Mount Kiera, and Jervis Bay, to the south of Sydney; in the coal ranges of the Clarence; at Blayney and Narrandera, and in the Bogan River valley. The ore occurs in the form of magnetite or magnetic oxide, the richest of all the ores of iron, and as brown hematite, or goethite. The iron ore is found in immense quantities, and within easy distance of the main railway lines. The richness of the ore is marvellous. Thus the clayband deposits, which in New South Wales are brown hematite, contain on an average 50 per cent. of iron, while the English claybands are mostly carbonates, and contain only 30 per cent. of metal. The magnetic oxides are even more wonderful in their yield of metal. Different samples of ore obtained from Wallerawang showed on analysis :—

Iron.

Ores exceedingly rich.

| | No. 1. | | No. 2. |
|---|---|---|---|
| Ferric oxide.................. | 64·01 per cent. | ... | 75·52 per cent. |
| Ferrous oxide ...... ........ | 8·99 ,, | ... | 1·01 ,, |
| Phosphoric oxide ......... | trace | ... | ·38 ,, |
| Sulphur........................ | none | ... | ·03 ,, |
| Silicia .................. ...... | 6·7 per cent. | ... | 4·35 ,, |

Specimens obtained from Mittagong showed from 73 to 85·5 per cent. of ferric oxide, with a bare trace of sulphur, or none, the average being fully 66 per cent. of metal.

The chief, and perhaps only works for the manufacture of iron from the ore are situated at Eskbank near Lithgow, where the metal treated is red siliceous ore, averaging 22 per cent., and brown hematite, yielding 50 per cent. metallic iron. Abundance of coal and limestone are found in the neighbourhood. The quantity of bars and rails made during 1885 was valued at £23,972, and of castings £1,820, while the value of iron and steel imported, mostly for home consumption, during 1886, was £950,000.

Principal iron works.

The field for the iron-maker in the Colony is therefore enormous, and nature has provided everything needful ready to his hand. Hitherto the very richness of magnetic ores has been the chief drawback to their being worked, for the smelting of rich ores has been exceedingly difficult, and, until recently, little understood. Now, however, since the introduction of the Bessemer process, and the successful experiments in the treatment of similar ores in England, the difficulty of smelting has been entirely overcome. From the causes named, the production of iron has been comparatively small, the quantity obtained from ores to the close of 1886 only reaching a value of £244,054.

Other metals.

6. *Antimony, Manganese, Bismuth, Cobalt, Mercury and other Minerals.*—Deposits of antimony occur in the Colony in various places, chiefly in the Armidale, Bathurst, and Rylstone districts. The deposits are large, and some of the mines, like the Eleanor Mine, of Armidale, are practically inexhaustible. For some time past, however, the price of this metal has not been sufficiently high to offer to colonial producers encouraging prospects. In the antimony mine at Razorback, near Bathurst, gold has been found associated in payable quantities with this mineral. Up to the end of 1886 the value of antimony exported from the Colony was £65,598.

Value of antimony exported.

*Manganese:* Considerable deposits of oxide of manganese ore have been discovered during the past few years in various parts of New South Wales, some of which yield on assay 70 per cent. of the metal. The demand for manganese in the Colony is very trifling, and until a foreign market is found, or local manufactories requiring the metal spring up, the rich deposits of this ore will remain untouched. The ore is found extensively in conjunction with iron, coal, and limestone.

*Bismuth, Cobalt, Calamine, and Mercury* are also found in many places, but with the exception of the former metal, no deposits have yet been systematically worked.

*Bismuth* is found associated with molybdenum and gold, in quartz veins in the neighbourhood of Tenterfield, whence the quantity raised has been chiefly obtained. The value of metal exported up to the end of 1886 was £13,880. Deposits of cobalt have been found lately at Port Macquarie, but the market for this metal is so small that no attempt has yet been made to produce it on any large scale.

*Mercury* in the native state was discovered in 1841, on the Cudgegong River, and it also occurs at Ophir and at the Clifton Mine, Boorook, but the deposits have never been worked.

*Cinnabar* has been found at Cudgegong, where a mine was worked for some time; it has been also discovered in the Abercrombie Ranges, and at Moruya. In all cases it was associated with gold, and other minerals.

### *NON-METALLIC MINERALS.*

Coal.

*Coal.*—The carboniferous formations extend over a considerable portion of the Colony, and workable coal-seams have been discovered in many places. At present, however, the coal-mining industry is confined to those centres, which, from their close proximity to ports of shipment, or to the railway lines, afford ready means for the disposal of the commodity when raised.

Discovery of coal.

Coal was first discovered in the Colony in the year 1797 by a man named Clark, who was supercargo of the "Sydney Cove," and later in the same year Lieutenant Shortland discovered the River Hunter, with the coal-beds situated near its mouth.

A.A. Co.'s monopoly.

In 1826 the Australian Agricultural Company obtained a grant of 1,000,000 acres of land, together with the sole right, conferred on them by charter, of working the coal-seams which were known to exist in the Newcastle district. Several mines were opened up, which were profitably worked for a number of years; but it was not until the expiration, in 1847, of the monopoly enjoyed by the company, that the coal-mining industry showed signs of development.

Output of Coal.

In the year named the yearly output of coal had only reached the total of 40,732 tons, of the value of £13,750. Five years afterwards the production had been doubled, and the output of this mineral has rapidly increased, year by year, and coal mining has now become one of the staple industries of the Colony. Newcastle is singularly well fitted by situation to become the port of supply for all the countries of the southern seas. Every week vessels leave her wharves coal-laden, not only for the Australian colonies, but for China, India, the Pacific Slope of North and South America, Mauritius, the Cape of Good Hope, and other lands. Every provision has been made by the Government for shipping coal, and nearly 3 miles of wharves line its shores, furnished with cranes and shoots capable of loading 16,200 tons per day.

From the seams worked in the Illawarra district the markets of the Colonies are also supplied with quantities of excellent coal.

Mountain Coal.

The deposits found in the Blue Mountains, near the line of railway which runs along their crest, at Katoomba, Lithgow, Wallerawang, and other places, supply part of the requirements of the city, and other industrial centres in its neighbourhood, as well as part of the western district of the Colony. Coal is also mined at Berrima and other places in that district, whence a large part of the coal consumed in the southern districts of the Colony is obtained.

Coal area.

The area over which coal is distributed is very great, and has been approximately computed at 23,950 square miles; besides this it is known to underlie the Hawkesbury sandstone in and around Sydney, having been discovered at various places by boring. Coal has also been found in the Clarence series, though it has not yet been worked commercially.

From the 40,732 tons extracted in 1847 under the monopoly of the Australian Agricultural Company, the quantity raised under public competition and enterprise has expanded to the large figure of 2,830,175 tons, valued at £1,303,164, in 1886; and a glance at the statement following will show that the output has steadily increased.

Total quantity obtained.

Up to the end of 1886 the total quantity of coal extracted from the New South Wales mines, from their opening in the earlier years of the century, amounted to 37,022,410 tons, valued at £18,352,669.

In the year 1886 the number of coal-mines registered and under official inspection amounted to 60, of which 40 were situated in the Hunter River district, 9 in the Illawarra, and 11 in the Western district. These mines gave direct employment to 7,719 persons.

Value of coal raised.

No. 11.—Estimated Quantity and Value of Coal raised in the Colony to the close of the year 1886, and averageprice per ton :—

| Year. | Quantity. | Average per ton. | | Value. | Year. | Quantity. | Average per ton. | | Value. |
|---|---|---|---|---|---|---|---|---|---|
| | Tons. | s. | d. | £ | | Tons. | s. | d. | £ |
| Prior to 1829 | 50,000 | 10 | 0 | 25,000 | 1859 | 308,213 | 13 | 3·14 | 204,371 |
| 1829 | 780 | 10 | 1·23 | 394 | 1860 | 368,862 | 12 | 3·36 | 226,493 |
| 1830 | 4,000 | 9 | 0 | 1,800 | 1861 | 342,067 | 12 | 9·52 | 218,820 |
| 1831 | 5,000 | 8 | 0 | 2,000 | 1862 | 476,522 | 12 | 9·73 | 305,234 |
| 1832 | 7,143 | 7 | 0 | 2,502 | 1863 | 433,889 | 10 | 10·66 | 236,230 |
| 1833 | 6,812 | 7 | 6·73 | 2,575 | 1864 | 549,012 | 9 | 10·10 | 270,171 |
| 1834 | 8,490 | 8 | 10 | 3,750 | 1865 | 585,525 | 9 | 4·43 | 274,303 |
| 1835 | 12,392 | 8 | 10·19 | 5,483 | 1866 | 774,238 | 8 | 4·44 | 324,049 |
| 1836 | 12,646 | 9 | 1·06 | 5,747 | 1867 | 770,012 | 8 | 10·79 | 342,655 |
| 1837 | 16,083 | 9 | 8·81 | 5,828 | 1868 | 954,231 | 8 | 9·08 | 417,809 |
| 1838 | 17,220 | 9 | 9·05 | 8,399 | 1869 | 919,774 | 7 | 6·32 | 346,146 |
| 1839 | 21,283 | 9 | 9·73 | 10,441 | 1870 | 868,564 | 7 | 3·54 | 316,836 |
| 1840 | 30,256 | 10 | 10·86 | 16,498 | 1871 | 898,784 | 7 | 0·47 | 316,340 |
| 1841 | 34,841 | 12 | 0 | 20,905 | 1872 | 1,012,426 | 7 | 9·92 | 396,198 |
| 1842 | 39,900 | 12 | 0 | 23,940 | 1873 | 1,192,862 | 11 | 1·94 | 655,747 |
| 1843 | 25,862 | 12 | 6·54 | 16,222 | 1874 | 1,304,612 | 12 | 1·37 | 790,224 |
| 1844 | 23,118 | 10 | 8·34 | 12,363 | 1875 | 1,329,729 | 12 | 3·89 | 819,430 |
| 1845 | 22,324 | 7 | 10·27 | 8,769 | 1876 | 1,319,918 | 12 | 2·06 | 803,300 |
| 1846 | 38,965 | 7 | 0·46 | 13,714 | 1877 | 1,444,271 | 11 | 10·74 | 858,998 |
| 1847 | 40,732 | 6 | 9·01 | 13,750 | 1878 | 1,575,497 | 11 | 8·28 | 920,936 |
| 1848 | 45,447 | 6 | 3·38 | 14,275 | 1879 | 1,583,381 | 12 | 0.12 | 950,879 |
| 1849 | 48,516 | 6 | 0·45 | 14,647 | 1880 | 1,466,480 | 8 | 6·36 | 615,337 |
| 1850 | 71,216 | 6 | 6·67 | 23,375 | 1881 | 1,769,597 | 6 | 9.55 | 603,248 |
| 1851 | 67,610 | 7 | 6·51 | 25,456 | 1882 | 2,109,282 | 8 | 11·97 | 948,965 |
| 1852 | 67,404 | 10 | 11·33 | 36,885 | 1883 | 2,521,457 | 9 | 6·40 | 1,201,941 |
| 1853 | 96,809 | 16 | 1·51 | 78,059 | 1884 | 2,749,109 | 9 | 5·71 | 1,303,097 |
| 1854 | 116,642 | 20 | 5·63 | 119,380 | 1885 | 2,878,863 | 9 | 3·72 | 1,340,212 |
| 1855 | 137,076 | 12 | 11·96 | 89,082 | 1886 | 2,830,175 | 9 | 2·50 | 1,303,164 |
| 1856 | 189,960 | 12 | 4·06 | 117,906 | | | | | |
| 1857 | 210,434 | 14 | 0·99 | 148,158 | Total | 37,022,410 | 9 | 10·97 | 18,352,669 |
| 1858 | 216,397 | 14 | 11·84 | 162,162 | | | | | |

Price of Coal.

The above table shows that coal, like other articles of commerce, is subject to fluctuations in price. These fluctuations have to a large extent arisen, in the past, from uncertainty in the markets. This uncertainty no longer exists, for the home markets and those of the other Australian Colonies, demand a large share of the coal raised. The proportion of the total taken by Australasia increases every year, and operates in the direction of steadying the price, by removing the principal cause of fluctuation. The highest average price obtained during any year was in 1854, the first of the Crimean war, when the price per ton was not less than twenty shillings and five pence. In 1872, the output reached one million tons, ten years later it had increased to two millions, and in 1886, to nearly three million tons.

Home consumption.

The Colony was its own chief customer during 1886, when out of a total production above stated, of 2,830,175 tons its consumption amounted to 1,094,410 tons, or more than 38 per cent. Victoria came next, with 640,655 tons. The quantity of coal required for home consumption for eleven years shows a satisfactory increase during each year.

No. 12.—Estimated Quantity of Coal retained for Home Consumption for the period 1876–86 :—

| Year. | Tons of Coal. | Year. | Tons of Coal. |
|---|---|---|---|
| 1876 | 451,101 | 1882 | 847,737 |
| 1877 | 528,544 | 1883 | 1,009,012 |
| 1878 | 569,077 | 1884 | 1,058,346 |
| 1879 | 585,333 | 1885 | 1,122,507 |
| 1880 | 712,824 | 1886 | 1,094,410 |
| 1881 | 739,753 | | |

Consumption per head.

The annual consumption per head increased from 15 cwt. in 1876 to 22 cwt. in 1886. The larger use of steam for railway locomotives, for manufacturing, and other purposes, as well as the multiplication of gas-works, accounts for a large portion of the increase, but it must also be borne in mind that the use of firewood has much decreased in the neighbourhood of Sydney, and the consumption of coal in the city for household purposes has therefore largely increased.

Export of coal.

The quantity of coal supplied to the customers of the Colony abroad shows also a large increase during this period.

No. 13.—Estimated Quantity of Coal Exported during the period 1876–86:—

| Year. | Tons. | Year. | Tons. |
|---|---|---|---|
| 1876 | 868,817 | 1882 | 1,261,545 |
| 1877 | 915,727 | 1883 | 1,512,445 |
| 1878 | 1,006,420 | 1884 | 1,690,763 |
| 1879 | 998,048 | 1885 | 1,756,356 |
| 1880 | 753,356 | 1886 | 1,735,865 |
| 1881 | 1,029,844 | | |

Countries to which New South Wales coal is principally exported.

The chief customers of New South Wales for coal during the year 1886, will be found in the following table, from which it will be seen how wide the circle is which looks to the Colony for the supply of one of the chief necessaries of civilization.

No. 14.—Quantity and Value of Coal Shipped to the leading Countries trading with the Colony during 1886:—

| Country or Port. | Quantity. | Value. |
|---|---|---|
| | Tons. | £ |
| Victoria | 640,655 | 336,979 |
| South Australia | 140,623 | 73,063 |
| Tasmania | 47,501 | 26,033 |
| New Zealand | 165,217 | 90,187 |
| Queensland | 22,053 | 12,151 |
| South Sea Islands | 815 | 499 |
| New Caledonia | 9,537 | 5,201 |
| Fiji | 21,929 | 12,254 |
| Hong Kong | 100,586 | 56,148 |
| China | 23,743 | 14,395 |
| Chili | 41,794 | 23,787 |
| Honolulu | 23,765 | 12,816 |
| Western Australia | 11,726 | 6,411 |
| Java | 33,294 | 18,606 |

| Country or Port. | Quantity. | Value. |
|---|---|---|
| *continued.* | Tons. | £ |
| Manilla | 36,617 | 19,509 |
| Peru | 5,866 | 3,335 |
| Mauritius | 6,334 | 3,602 |
| Singapore | 5,934 | 3,234 |
| Ceylon | 5,868 | 3,540 |
| Burmah | 8,155 | 4,645 |
| Guam | 1,795 | 991 |
| Mexico | 9,287 | 5,184 |
| Bankok | 1,885 | 1,030 |
| Burrard's Inlet | 200 | 120 |
| Panama | 3,555 | 2,025 |
| New Guinea (British) | 600 | 330 |
| Macassar | 393 | 275 |
| Padang | 3,863 | 2,212 |
| Petropaulovski | 1,750 | 998 |
| Cape Town | 318 | 174 |
| United States | 305,824 | 176,991 |
| India | 54,386 | 30,277 |
| Total | 1,735,865 | 947,002 |

Wealth of Colony in coal.

The wealth of the Colony of New South Wales in coal is enormous, and the further development of the industry may be regarded as almost a certainty. As the great Australian Continent is only in the early period of the development of its immense resources, the coal-mining industry of New South Wales also may be said to be in its infancy. It is, however, a very vigorous infancy, giving promise of a great future.

Coal as a heat producer.

The New South Wales coal, especially that obtained in the northern mines, compares favourably with the best foreign coal as a heat producer. It has the advantage of greater specific gravity to the extent of 6 per cent., and contains less sulphur. The tabular comparison given below will enable a better understanding of this branch of the question to be obtained. The average of English, Welsh, and Scotch mines will be found after the analysis of Northern District coals, and it will be seen that there is practically little difference between the British and Hunter River coal.

No. 15.—Analysis of Northern District Coals, New South Wales :—

| Locality. | Specific Gravity. | Composition per cent. exclusive of water only. | | | | | | Water per cent. | Coke per cent. | Water at 212° converted into steam by 1 lb. coal. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbon. | Hydrogen. | Oxygen. | Nitrogen. | Sulphur. | Ash. | | | |
| Wallsend ........................ | 1·333 | 79·96 | 6·26 | 7·08 | ·68 | 1·25 | 4·77 | 2·75 | 61.86 | lb.<br>13·20 |
| Waratah.......................... | 1·303 | 81·06 | 5·81 | 6·52 | 1·23 | 1·14 | 4·24 | 2·21 | 59·97 | 14·30 |
| A. A. Co., Newcastle ......... | 1·297 | 78·76 | 6·34 | 7·28 | ·79 | 1·36 | 5·47 | 2·20 | 62·87 | 12·92 |
| Greta ............................. | 1·287 | 73·41 | 6·60 | 9·34 | 1·43 | 1·44 | 2·78 | 2·25 | 57·13 | 13·21 |
| Russell's Mine .................. | 1·274 | 77·37 | 6·48 | 10·46 | 1·51 | 1·43 | 2·75 | 1·85 | 52·65 | 13·21 |
| Anvil Creek ...................... | 1·323 | 77·15 | 5·91 | 6·07 | 1·46 | 1·43 | 7·93 | 1·74 | 55·70 | 12·65 |
| Cardiff Mine ..................... | 1·286 | 82·25 | 4·38 | 6·95 | 1·03 | ·35 | 5·04 | 1·853 | 54·43 | ...... |
| Mean ............ | 1·305 | 79·28 | 5·97 | 7·67 | 1·16 | 1·21 | 4·71 | 2·122 | 57·80 | 13·25 |
| British Coals (mean) ......... | 1·279 | 80·40 | 5·19 | 7·87 | 1·21 | 1·25 | 4·05 | 0·63 to 9·18 | 61·00 | 14·82 |

Analysis of Western District Coals :—

| Locality. | Specific gravity. | Composition per cent. exclusive of water only. | | | | | | Water per cent. | Coke per cent. | Carbolic intensity calculated. | Water at 212° converted into steam by 1 lb. coal. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbon. | Hydrogen. | Oxygen. | Nitrogen. | Sulphur. | Ash. | | | | |
| | | | | | | | | | | | lb. |
| Eskbank .................. | 1·335 | 72·30 | 5·43 | 6·65 | ·85 | 1·60 | 13·17 | 2·00 | 62·88 | 74·26 | 12·65 |
| Bowenfells ............... | 1·399 | 70·72 | 5·65 | 9·65 | ·93 | 1·38 | 11·67 | 2·36 | ...... | 72·45 | 12·65 |
| Lithgow .................. | 1·329 | 69·41 | 6·10 | 11·70 | 1·03 | 1·44 | 10·32 | 1·95 | 62·46 | 72·06 | 12·10 |
| Vale of Clwydd......... | 1·323 | 69·86 | 5·82 | 11·89 | 1·02 | 1·40 | 10·07 | 2·10 | 63·18 | 71·38 | 12·10 |
| Mean ............... | 1·346 | 70·57 | 5·75 | 9·97 | ·96 | 1·45 | 11·29 | 2·10 | 62·84 | 72·54 | 12·37 |

Analysis of Southern District Coals :—

| Locality. | Specific gravity. | Composition per cent. exclusive of water only. | | | | | | Water per cent. | Coke per cent. | Carbolic intensity calculated. | Water at 212° converted into steam by 1 lb. coal. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Carbon. | Hydrogen. | Oxygen. | Nitrogen. | Sulphur. | Ash. | | | | |
| | | | | | | | | | | | lb. |
| Nattai..................... | ...... | 91·24 | 3·60 | 0·59 | ...... | trace. | 4·56 | 3·28 | 92·37 | 85·90 | undetermined. |
| Mt. Kembla .......... .. | 1·363 | 80·67 | 5·30 | 1·58 | ·70 | ·87 | 10·88 | 1·50 | ...... | 82·70 | 13·21 |
| Mt. Kiera .............. | 1·379 | 78·82 | 5·17 | 3·87 | 1·33 | 1·00 | 9·81 | 1·15 | 74·35 | 79·83 | 12·92 |
| Berrima ................. | 1·364 | 69·92 | 4·55 | 13·09 | ·56 | 1·30 | 10·58 | 1·70 | 64·24 | 66·53 | 11·82 |
| Bulli ..................... | 1·471 | 76·35 | 4·75 | 5·04 | ...... | ·55 | 13·31 | 1·03 | 74·78 | ...... | 12·21 |
| Mean ............... | 1·394 | 79·401 | 4·675 | 4·833 | ·52 | ·74 | 9·829 | 1·733 | 76·436 | 78·75 | 12·54 |

## *KEROSENE SHALE.*

This mineral is found in various parts of the Colony, but principally at Hartley, Blackheath, Bathgate, near Wallerawang, Joadja Creek, Berrima, Mount Kembla, Burragorang, Lake Macquarie, and Greta, and also at Colley Creek, near Murrurundi, and lately in the Capertee District, in the valley of the Wolgan River.

Shale Deposits.

The shale occurs in saucer-shaped deposits, varying in thickness from a few inches to 6 feet. It is a species of cannel-coal, similar to the Boghead mineral of Scotland, but yielding a much larger per-centage of volatile hydro-carbon than the Scotch mineral. The richest quality yields upwards of 150 gallons of crude oil per ton, or 18,000 cubic feet of gas, with an illuminating power of thirty-eight or forty sperm candles. It is found advantageous for mixing with ordinary coal for the manufacture of gas, and is largely exported to Great Britain, America, and other foreign countries, as well as the neighbouring colonies, for gas purposes. On analysis the following result was obtained from average specimens :—

| | |
|---|---|
| Volatile Hydro-carbons, including moisture | 82·50 |
| Fixed Carbon | 6·50 |
| Ash | 11·00 |

Though analyses of this mineral have proved that payable seams occur in many places, only two companies have as yet systematically worked the kerosene shale in the Colony—the New South Wales Shale and Oil Company, at Hartley, and the Australian Oil and Mineral Company, at Joadja Creek. These companies raise shale not only for export, but also manufacture from it petroleum oil and other products.

Quantity and value of shale raised.

The quantity of shale raised since the opening of the mines in 1865 amounts to 441,242 tons, of the value of £995,413, as illustrated in the following table.

No. 16.—Table showing the Quantity and Value of Kerosene Shale produce during the years 1865-86 :—

| Year. | Quantity. | Average price per ton. | | | Total value. | Year. | Quantity. | Average price per ton. | | | Total value. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Tons. | £ | s. | d. | £ | | Tons. | £ | s. | d. | £ |
| 1865 | 570 | 4 | 2 | 5·47 | 2,350 | 1877 | 18,963 | 2 | 9 | 0·81 | 46,524 |
| 1866 | 2,770 | 2 | 18 | 10·48 | 8,150 | 1878 | 24,371 | 2 | 6 | 11·40 | 57,211 |
| 1867 | 4,079 | 3 | 14 | 9·21 | 15,249 | 1879 | 32,519 | 2 | 1 | 1·96 | 66,931 |
| 1868 | 16,952 | 2 | 17 | 7·11 | 48,816 | 1880 | 19,201 | 2 | 6 | 7 03 | 44,725 |
| 1869 | 7,500 | 2 | 10 | 0 | 18,750 | 1881 | 27,894 | 1 | 9 | 2·59 | 40,748 |
| 1870 | 8,580 | 3 | 4 | 3 18 | 27,570 | 1882 | 48,065 | 1 | 15 | 0 | 84,114 |
| 1871 | 14,700 | 2 | 6 | 3·91 | 34,050 | 1883 | 49,250 | 1 | 16 | 10·77 | 90,861 |
| 1872 | 11,040 | 2 | 11 | 11·91 | 28,700 | 1884 | 31,618 | 2 | 5 | 7·86 | 72,176 |
| 1873 | 17,850 | 2 | 16 | 6·55 | 50,475 | 1885 | 27,462 | 2 | 8 | 11·62 | 67,239 |
| 1874 | 12,100 | 2 | 5 | 1·48 | 27,300 | 1886 | 43,563 | 2 | 5 | 10·78 | 99,976 |
| 1875 | 6,197 | 2 | 10 | 10·22 | 15,500 | | | | | | |
| 1876 | 15,998 | 3 | 0 | 0 | 47,994 | Total | 441,242 | 2 | 5 | 1·42 | 995,413 |

Yearly output of shale compared.

Compared with the years 1882 and 1883, the production of the two years, 1884 and 1885, exhibits a considerable decrease, somewhat compensated for by the higher price obtained for the shale. The year 1886, however, shows a renewal of activity in the production of this mineral.

## *DIAMONDS AND GEM-STONES.*

The existence of diamonds, and other gem-stones, in the territory of New South Wales has been known for many years, but no attempt had been made to work the deposits until lately, when, during the year 1884, a company was formed to develop the mines, near the town of Bingera. In the course of the following year several deposits of diamantiferous wash were discovered in the country round Inverell, in the New England district. Operations, however, have been confined to a preliminary testing of the claims, and some very good results have been obtained.

Number of diamonds found.

The number of diamonds found in the Colony to the end of 1886, is estimated at 50,000, the largest being one of 5⅝ carats, or 16·2 grains.

During the year 1885, the Australian Diamond Company, at Bingera, washed eighty-seven loads, which yielded 1,134 diamonds, weighing 209 carats. The Crown Jewel Diamond-mine also sold a parcel of 285 diamonds, weighing $104\frac{5}{8}$ carats, which were purchased for the Colonial and Indian Exhibition.

Distribution of gems.

Diamonds and gem-stones have also been found in other parts of the Colony besides the New England District, and the late Dr. Böhme, a geologist of some merit, who for many years resided at Wellington, obtained from the surrounding country specimens of the whole series of gem-stones known to commerce. This industry, however, has not yet received the attention which it deserves.

### *MARBLE, BUILDING STONES, FIRE-CLAYS, SLATES.*

The Colony possesses a most abundant supply of all the various kinds of stone, and other materials, for the building and adornment of its cities.

Marble limestone is found in great masses near Wallerawang, Bathurst, Marulan, Tamworth and Kempsey, all places within convenient distance of the great arteries of communication, and it is obtainable in all its different varieties.

Granite is also found near Goulburn, Moruya, and Trial Bay, as well as at many other places throughout the Colony. Most of the granite hitherto used in Sydney has been obtained from Moruya, a port about 180 miles south of Sydney.

Building stone.

The Hawkesbury formation, over which the City of Sydney is built, provides the city with an inexhaustible supply of sandstone, of the highest quality for building and paving purposes. This material is admirably adapted for architectural effect, besides being of a pleasant colour, fine grain, and very easily worked. No inconsiderable part of the beauty of Sydney street architecture is due to the free use of sandstone.

Fire-clays.

The coal measures also contain numerous beds of fire-clays, and in every part of the Colony excellent clays, well adapted for brick-making purposes, are extensively worked.

Slates are found in several districts, but are principally quarried at Gundagai, and in the surrounding district, as well as near Bathurst and Goulburn.

Building materials.

The Colony has no need to import building material of any description, and possesses a supply amply sufficient to provide for her own wants and those of her neighbours.

In order to illustrate the importance of the mining industry to the Colony, the following tables have been compiled. They contain a comparative statement of the quantity and value of minerals obtained in the years 1885 and 1886, as well as the total value of these products during the last eleven years.

No. 17.—Quantity and Estimated Value of Minerals obtained in the Colony during the years 1885–86 :—

| Minerals. | 1885. | | 1886. | | Increase in value. | De-crease in value. |
|---|---|---|---|---|---|---|
| | Quantity. | Value. | Quantity. | Value. | | |
| | oz. | £ | oz. | £ | £ | £ |
| Gold ............ | 103,736·36 | 378,665 | 101,416·80 | 366,294 | ...... | 12,371 |
| Silver ......... | 794,173·80 | 159,187 | 1,015,433·50 | 197,544 | 38,357 | ... |
| | tons. | | tons. | | | |
| Coal ............ | 2,878,863·23 | 1,340,213 | 2,830,175·00 | 1,303,164 | ...... | 37,049 |
| Shale ......... | 27,462·00 | 67,239 | 43,563·00 | 99,976 | 32,737 | ... |
| Tin ............ | 5,192·80 | 415,626 | 4,967·80 | 467,653 | 52,027 | ... |
| Copper ......... | 5,746·00 | 264,920 | 4,026·80 | 167,665 | ...... | 97,225 |
| Iron ............ | 4,175·79 | 25,793 | 3,685·87 | 19,068 | ...... | 6,725 |
| Antimony ...... | 292·75 | 4,296 | 273·15 | 3,381 | ...... | 915 |
| Bismuth......... | 14·17 | 3,700 | 20·90 | 3,870 | 170 | ... |
| Sundry minerals. ......... | 456·76 | 7,820 | 69·22 | 5,327 | ...... | 2,493 |
| Silver lead ore | 2,286·20 | 107,626 | 4,802·10 | 294,485 | 186,859 | ... |
| Asbestos ...... | 6·00 | 90 | ......... | ...... | ...... | 90 |
| Total value | ......... | 2,775,175 | ......... | 2,928,427 | 153,252 | ... |

No. 18.—Estimated Value of Mineral Products obtained in the Colony during the period 1876-86 :—

| Year. | Gold. | Silver. | Silver and Lead. | Tin. | Copper. | Iron. | Coal. | Shale. | Antimony. | Bismuth. | Sundry Minerals. | Total Value. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| 1876 | 613,190 | 15,456 | 1,392 | 439,638 | 249,978 | 13,399 | 803,300 | 47,994 | 140 | ...... | ...... | 2,184,487 |
| 1877 | 471,418 | 6,673 | 322 | 508,540 | 324,226 | 7,600 | 858,998 | 46,524 | 1,131 | ...... | 7,725 | 2,233,160 |
| 1878 | 430,033 | 13,291 | 258 | 395,822 | 345,158 | 6,666 | 920,936 | 57,211 | 1,964 | ...... | 1,082 | 2,172,421 |
| 1879 | 407,219 | 18,071 | 535 | 372,349 | 257,352 | 10,550 | 950,879 | 66,930 | 1,046 | ...... | 525 | 2,085,456 |
| 1880 | 441,543 | 21,878 | 890 | 471,337 | 364,059 | 15,335 | 615,337 | 44,725 | 1,652 | ...... | 1,118 | 1,977,874 |
| 1881 | 565,513 | 13,026 | 1,625 | 724,003 | 355,062 | 47,871 | 603,248 | 40,748 | 17,346 | 2,728 | 1,020 | 2,373,190 |
| 1882 | 526,521 | 9,024 | 360 | 833,461 | 324,727 | 37,224 | 948,965 | 84,114 | 16,732 | 162 | 1,054 | 2,782,344 |
| 1883 | 458,509 | 16,488 | 2,075 | 824,552 | 577,201 | 26,908 | 1,201,942 | 90,861 | 5,555 | 650 | 160 | 3,204,901 |
| 1884 | 395,292 | 19,780 | 241,940 | 521,587 | 416.179 | 24,572 | 1,303,077 | 72,176 | 6,458 | 2,770 | ...... | 3,003,831 |
| 1885 | 378,665 | 159,187 | 107,626 | 415,626 | 264,920 | 25,793 | 1,340,213 | 67,230 | 4,296 | 3,700 | 7,910 | 2,775,175 |
| 1886 | 366,294 | 197,544 | 294,485 | 467,653 | 167,665 | 19,068 | 1,303,164 | 99,976 | 3,381 | 3,870 | 5,327 | 2,928,427 |
| Totals | 5,055,197 | 490,418 | 651,511 | 5,974,568 | 3,646,527 | 234,986 | 10,850,059 | 718,498 | 59,701 | 13,880 | 25,921 | 27,721,266 |

# PART VII.

## Vegetation.

FORESTS extend over almost the whole area of the Colony, excepting portions of the Monaro, the Lachlan, and the Murrumbidgee districts, where extensive treeless plains occur, clothed with salt-bush, scrub, or varieties of natural grasses. The country covered by timber may be divided into three classes—open, brush, and scrub forests.

Open forests cover the greatest portion of the surface of the Colony, and are found in every formation. The varieties of trees met with are chiefly species of the Eucalyptus tribe, and Melaleuca, Callistemon, and other genera of the order Myrtaceæ.

**Prevalence of eucalypti.**

The prevalence of the eucalypti, and the large extent covered by the forests, give the country that appearance of monotony, which has been unjustly associated with Australian scenery. The park-like appearance of the open forests and the beauty of the many flowering shrubs win admiration, in spite of the sameness of the trees; while even the dull greyish blue of the foliage of the gum-trees, when relieved by the yellow blossoms of the wattle, the graceful myall, or the beautiful and shapely kurrajong, is not without its attractiveness.

The trees are for the most part perfectly straight and cylindrical in the trunk, and when full-grown, their first branch is at a considerable height from the ground. The roots of the eucalyptus lie at no great distance from the surface soil, an adaptation of nature suited to the peculiar climatic conditions of the country. The finest specimens of most of the timber trees, those yielding the most valuable timber, are found on the ridges and hill sides, in places frequently too rough and stony for cultivation. This circumstance is in many ways fortunate for the Colony. In the course of settlement, when the rich plains are denuded of their trees, the land not adapted for agricultural settlement will still be available for the growth of the finest trees, when its scarcity will make timber more appreciated than it is at present.

Chief varieties of timber trees

On the river flats immense specimens of flooded gum *(e. rostrata)* and apple-trees *(angophora subvelutina)* mark the course of the streams. The flooded gum grows to a height of 100 feet, and its wood is most useful for heavy work, and in positions where the structure is liable to attack by white ants. The apple-tree has more spread than the majority of indigenous trees, its wood is strong, heavy, and durable. The distribution of the species is very extensive.

On the ridges, and mountain sides, other varieties are chiefly found. The box is a tree which reaches 180 feet in height, with a thickness of 6 feet. The timber is chiefly used for firewood, for which purpose it has no superior.

The bastard box, supposed to be a cross between the box and grey gum, is widely distributed over the Colony. The quality of the timber varies greatly, according to the place of growth; some varieties are surpassed amongst hard woods by nothing except ironbark.

Ironbark.

Ironbark *(e. leucoxylon* and *e. paniculata*) is a tree of moderate size, usually when full grown from 60 to 80 feet in height, though the white ironbark attains a height of 150 feet. The timber is heavy, and renowned for its great strength, fine specimens standing a tensile strain half as great again as the best oak. The timber is used most extensively for wharves and bridges, as also for housework. Ironbark is found very widely distributed, and frequently grows to perfection on the poorest soil.

The ironbark and the box are slow growing trees, as compared with many other varieties of eucalyptus, such as the blue gum, which latter attains a great height in a very few years.

Blue Gum.

The blue gum (*e. globulus*) one of the finest of the eucalyptus tribe, is only met with in portions of the southern table-land, but the blue gum (*e. goniocalyx*), also called flooded gum, grows extensively in the coastal districts. It attains a moderate height, but is rather thicker in the trunk than most varieties of gum trees, sometimes reaching 7 feet in diameter. The timber is greatly in demand, owing to its comparative lightness, and is easily worked, being used for all purposes to which hardwood is applied.

Spotted gum grows in all the coast districts, and in some portions of the interior, generally where the soil is poor. This tree is one of the handsomest of the forest trees, and attains a height of 100 feet. The quality of the wood varies greatly, according to the habitat, and the character of the soil; when good it is considered specially adapted for ship-building.

Stringybark.

Stringybark, so called from its peculiar fibrous bark, grows chiefly on the northern table-lands. It is a large tree, and its wood is of great and general utility. The bark is extensively used for thatching, and forms also a very useful paper-making material.

The messmate *(e. obliqua)*, also called stringbark, is one of the largest of the Australian trees, being frequently met with more than 250 feet in height. It grows in the south-eastern portion of the Colony. The bark is used for thatching, being similar in character to that of the tree just described; it would also form an excellent paper-making material.

The blood-wood is also a large tree, growing in the coastal districts of the Colony. The timber is used chiefly for fencing purposes, and for railway sleepers.

The grey gum (*e. tereticornis*) grows to a height of 150 feet, and is found extensively distributed over the whole of the coastal districts. It yields excellent timber, hardly inferior to ironbark. There are several varieties of this tree, some of which produce wood of remarkable beauty, and of great durability.

Tallow-wood.

Tallow-wood is a very large tree, growing extensively in the forests north of Sydney. Its wood is more easily wrought than most of the hardwoods, and has great strength and durability, being employed largely for floors, and other building purposes, and for the decking of ships.

The mountain ash, or white-top, is found both on the table-lands and in the coast districts. Its timber is in demand for coopers' work, and for rough carpentry. The tree grows to about 150 feet in height.

Turpentine tree.

The turpentine tree *(Syncarpia laurifolia)* is found mainly in the district lying between the Shoalhaven and the Macleay. It grows to magnificent proportions, sometimes reaching a height of 200 feet, with a diameter of 6 feet. The timber is largely used for piling, and other work in sea-water, as it resists better than any other New South Wales timber the attack of the teredo.

## *BRUSH FORESTS.*

The brush forests cover a considerable extent of country along the coast. The trees found in them differ entirely from those of the open forests, and there is no lack of variety either in the character of the trees or the colour of their foliage. Tall graceful fern trees, sometimes attaining a height of 60 feet, beautiful varieties of palms, cabbage-trees, and Moreton Bay figs of enormous proportions are prominent features of the brush, though these are perhaps more ornamental than useful. There are, however, found in the brush forests timber trees of the greatest value.

Red and White Cedar.

The red and white cedar *(cedrela toona* and *melia composita)* were once abundant in the northern forests, but at present most of the full grown trees are only met with on the high ridges. The red cedar is a magnificent timber tree, often attaining a height of 150 feet, with a girth of over 30 feet. Its timber has great value, being light, easily wrought, durable, splendidly grained, and well adapted for furniture and cabinet-making.

The white cedar is a pretty tree growing to a height of 80 feet, with a diameter of 3 feet. Its timber is soft and easily worked, but is deficient in tensile strength and durability, and therefore in no great demand.

Silky oak.

The silky oak grows to the height of almost 100 feet, under favourable circumstances, and yields a wood highly prized for staves.

Tulip-wood.

The tulip-wood is a tall tree with beautifully marked timber of various shades, and susceptible of a fine polish.

Ash.

The ash, or pigeon berry-tree, grows to a great height, sometimes reaching 130 feet, with a diameter of 5 feet. Its timber is light and tough, and in good demand.

Colonial Pine.

The colonial pine (*araucaria Cunninghamii*) is one of the finest trees of Australia, sometimes reaching a height of 200 feet, with a trunk 5 feet thick. Its timber is extensively used, being cheaper than any imported pine; it is white in colour and easily wrought.

Beech.

Native beech is also a tree of noble proportions, reaching 150 feet in height. Its timber is greatly in demand, being superior to most native timber when exposed, as it neither shrinks nor warps. In colour the wood is white or silvery, with a fine close grain.

Besides the varieties mentioned above, there are in the brush forests many others, yielding timber of large size and of great value, but the abundance of timber of other descriptions more readily accessible, has hitherto satisfied the local demand, and the resources of these forests have been almost entirely overlooked.

Great variety of timber in brush forests.

The character of the vegetation of the brush forests alters considerably according to the latitude. The trees of the Araucaria and Flindersia tribes, as well as the principal varieties of cedar, find a home chiefly in the northern parts of the Colony, while many of the trees growing in the south have no representatives in the northern forests.

The soil of the brush lands is wonderfully fertile, consisting as it does of decomposed volcanic rocks, enriched by the accumulation of decayed vegetable matter, and when cleared yields an abundant return.

### *SCRUB FORESTS.*

The scrub forests are found in the poor soils, principally in the Lachlan and Darling districts. The chief species represented are the pine, the acacia, and the eucalyptus, but though some of the trees are of great beauty, they have little commercial value. The most uninviting portion of the Colony is covered with scrub, and the mallee districts, clothed as they are with stunted timber, a variety of the eucalyptus, impress the traveller more unfavourably than would even a barren waste.

Dividing the timber trees of New South Wales into the natural divisions of hardwoods, softwoods, and pinewoods, the larger portion, both as to the variety of trees and the area covered by the forests, comes under the first-mentioned class. All the trees already referred to as growing in the open forests are hardwoods; and besides those described there are many others, of recognized commercial value, which are extensively used.

Hardwoods.

Australian hardwood trees are remarkable for the great size of the beams which may be obtained from them, as well as for the great toughness and durability of their wood. In a subsequent table the mean tensile strength of various timbers is given, from which it will be seen that the red-flowering ironbark has a tensile strength of 4·76 tons per square inch, as compared with 3·33 tons for English oak, and 2·56 tons for teak. None of the other timbers has so high a tensile strength as this description of ironbark, but nearly all the varieties have a greater tensile strength than oak. As already pointed out, the quality of the wood is materially influenced by the soil on which the trees grow, and the great range of strength given for some woods is due to this cause.

The absence of branches for the greater portion of the height enables the timber to be obtained to the best advantage; and as full-grown trees of most varieties are rarely less than 100 feet high, with corresponding girth, the quantity of timber obtainable is very large.

Softwoods.

The softwoods of the Colony are chiefly found in the brush forests of the coast district, and rival those of any other part of the world. Some of the least known of the brush forest trees have wood grained and marked most beautifully, which is capable of receiving the highest polish, while some are fragrantly perfumed. These woods are adapted to the finest description of cabinet-making, and it is strange that their merits have so long escaped attention.

Amongst the chief varieties of woods of this class may be mentioned the red cedar, now unfortunately disappearing, whose beautiful wood, somewhat resembling mahogany, is admirably adapted for the higher kinds of cabinet-makers' work. Some of the cedar-trees grow to immense size, as much as 2,500 cubic feet of valuable timber having been obtained from one tree. In addition to the cedar may be mentioned rosewood, tulipwood, yellowwood, white maple, white beech, myall, marblewood, mock orange, and many others.

Besides their use for cabinet-making, many of the brush timbers are of great utility for the rougher kinds of carpentry, while some, both hard and soft woods, are admirably adapted for coach-builders' and coopers' work.

Pinewoods.

The chief description of pine growing in New South Wales is the Moreton Bay white pine, found in the coast districts, as far south as the Bellinger. It is soft, light, and easily wrought, and suitable for all internal work of houses, as well as for cabinet-making.

The red or black pine is extensively distributed over the Liverpool Plains, and in the Lachlan and Darling River districts, as well as around Berrima. It is beautifully marked in the grain, takes a fine polish, and has an agreeable fragrance.

Colonial deal is an excellent timber, and is obtained in very large scantling, the tree frequently reaching 120 feet in height. It is soft, close-grained, easily wrought, and remarkably free from knots. Its use, therefore, is extensive for cabinet-makers' work and house-fittings.

There are numerous other varieties of pine, but they resemble in their main features those already described.

Importation of timber very large.

Notwithstanding the very large resources of the Colony as a timber growing country, the importation of wood is very large. In 1886, the quantity amounted to 23,561,175 feet of dressed timber, valued at £201,533, and 41,043,618 feet of undressed, valued at £232,907 ; besides which there were sundries to the value of £14,006, the total value of timber imported being £448,446. The following table shows the quantity and value of timber, dressed and undressed, imported during 1886, distinguishing the countries from which the timber was shipped :—

TIMBER IMPORTED DURING THE YEAR 1886.

*Dressed Timber.*

| | Feet. | £ |
|---|---|---|
| Great Britain | 6,404,526 | 62,952 |
| Victoria | 869,540 | 10,694 |
| South Australia | 346,493 | 6,186 |
| Queensland | 204 | 10 |
| France | 5,288 | 575 |
| New Zealand | 5,376,615 | 39,789 |
| British Columbia | 113,577 | 800 |
| United States | 4,479,598 | 37,470 |
| Norway | 5,762,179 | 41,535 |
| Germany | 171,072 | 1,300 |
| New Caledonia | 32,083 | 242 |
| | 23,561,175 | 201,553 |

*Undressed Timber.*

| | Feet. | | £ |
|---|---|---|---|
| Great Britain | 1,519,040 | ... | 11,645 |
| Victoria | 772,366 | ... | 7,399 |
| South Australia | 662,426 | ... | 10,914 |
| Queensland | 122,297 | ... | 850 |
| Tasmania | 64,639 | ... | 443 |
| New Zealand | 8,465,653 | ... | 44,077 |
| Hong Kong | 5,338 | ... | 71 |
| British Columbia | 1,808,416 | ... | 8,000 |
| United States | 25,761,156 | ... | 137,279 |
| Norway | 1,039,042 | ... | 6,204 |
| Germany | 53,696 | ... | 455 |
| Western Australia | 30,000 | ... | 5 |
| Sweden | 513,004 | ... | 4,200 |
| Belgium | 1,300 | ... | 5 |
| New Caledonia | 127,545 | ... | 640 |
| New Guinea | 4,000 | ... | 50 |
| Borneo | 93,700 | ... | 670 |
| | 41,043,618 | | 232,907 |

Nearly all this timber was consumed in the Colony, the re-export amounting to only 161,105 feet of dressed, and 1,406,063 feet of undressed.

Chief places timber is imported from.

The importation of timber is chiefly from the United States, New Zealand, Great Britain, British Columbia, and Scandinavia. From the western sea-board of the United States the Colony receives its largest supply, the importations during 1886 amounting to 4,479,598 feet of dressed, and 25,761,156 feet of undressed, or rough timber, a quantity equal to nearly 50 per cent. of the whole. This timber is chiefly what is known as Oregon pine. Next to the United States comes New Zealand, from which the Colony received 5,376,615 feet of dressed, and 8,465,653 feet of undressed timber, mostly kauri pine.

In the following table is shown the import of timber, both dressed and undressed, from the countries above enumerated, and it will be seen how large an increase has taken place in the imports from the United States, amounting to about 55 per cent. on the dressed timber, and considerably over 300 per cent. on the undressed, during the period.

## No. 19.—Quantity of Timber Imported from undermentioned Countries :—

| Year. | Great Britain. | | New Zealand. | | United States. | | British Columbia. | | Norway and Sweden. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dressed. | Undressed. | Dressed. | Undressed. | Dressed. | Undressed. | Dressed. | Undressed. | Dressed. | Undressed. |
| 1882 | 8,587,379 | 5,565,817 | 5,134,548 | 6,797,707 | 2,886,261 | 6,249,246 | 1,321,246 | 4,226,779 | 2,821,948 | 471,389 |
| 1883 | 3,387,978 | 1,259,026 | 2,602,020 | 10,495,194 | 2,859,410 | 8,156,933 | 2,129,987 | 8,045,305 | 4,589,367 | 796,428 |
| 1884 | 2,802,837 | 1,988,360 | 4,281,249 | 9,866,251 | 3,121,896 | 10,653,850 | 828,490 | 7,354,823 | 4,295,153 | 345,081 |
| 1885 | 3,522,771 | 1,732,186 | 5,304,866 | 10,537,974 | 3,436,799 | 19,728,436 | 767,319 | 9,485,774 | 5,423,341 | 1,262,909 |
| 1886 | 6,404,526 | 1,519,040 | 5,376,615 | 8,465,653 | 4,479,598 | 25,761,156 | 113,577 | 1,808,416 | 5,762,179 | 1,552,046 |

The quantities are in square feet one inch thick.

The export of colonial hardwood is considerable, but relatively small as compared with the timber imported. During the year 1886 133,973 feet of dressed timber, valued at £1,345, and 13,255,804 feet of rough or undressed, valued at £57,764, also sundries to the value of £2,867, or a total value of £61,976, were exported.

xport of imber.

The countries purchasing timber from New South Wales, with the value and amount of their purchases, are given below.

EXPORT OF NEW SOUTH WALES TIMBERS.

*Dressed Timber.*

| | Feet. | £ |
|---|---|---|
| Victoria | 92,584 | 918 |
| New Zealand | 260 | 4 |
| Queensland | 18,565 | 223 |
| South Sea Islands | 18,501 | 157 |
| Fiji | 2,500 | 27 |
| Western Australia | 1,563 | 16 |
| | 133,973 | 1,345 |

*Undressed Timber.*

| | Feet. | £ |
|---|---|---|
| Great Britain | 3,468 | 36 |
| Victoria | 10,553,955 | 39,617 |
| South Australia | 25,733 | 330 |
| Tasmania | 43,095 | 563 |
| New Zealand | 1,018,143 | 7,674 |
| Queensland | 1,014,946 | 4,397 |
| South Sea Islands | 62,347 | 615 |
| New Caledonia | 13,165 | 100 |
| Fiji | 354,268 | 2,749 |
| Western Australia | 130,520 | 1,197 |
| United States | 11,256 | 180 |
| Honolulu | 13,260 | 177 |
| Singapore | 3,000 | 33 |
| Kaiser Wilhelm's Land | 8,648 | 96 |
| | 13,255,804 | 57,764 |

Exports of imber to Vic- toria large.

Victoria is the largest importer of New South Wales timber, the purchases of that colony amounting to over 68 per cent. of the total export for 1886.

Exports.

During the five years which closed with 1886, the exports of New South Wales timber were:—

| Year. | Dressed Timber. | Undressed Timber. |
|---|---|---|
| | Feet of 1 in. thick. | Feet of 1 in. thick. |
| 1882 | 132,894 | 5,771,868 |
| 1883 | 218,517 | 8,611,237 |
| 1884 | 320,093 | 14,239,211 |
| 1885 | 203,930 | 9,777,797 |
| 1886 | 133,973 | 13,255,804 |

It will be seen that the quantity exported varied greatly; this is entirely due to the fluctuation in the amount taken by Victoria. In the years 1884–5–6 large public works were being executed in that colony, requiring considerable quantities of hardwood, which was most readily procurable from New South Wales. Out of a total export of 14,239,211 feet of undressed timber in 1884, Victoria took 11,170,536; in the following year out of 9,777,797 feet, 6,696,653 feet went to Victoria, and during 1886, 10,553,955 feet were taken by that colony, out of a total export of 13,255,804 feet.

Next to Victoria, Queensland and New Zealand imported the largest quantity of New South Wales timber; the export to these colonies is almost entirely of undressed timber, that to New Zealand being chiefly square timber and scantling. During 1886, Queensland imported 1,014,946 feet; in 1885, 1,501,067 feet; in 1884, 1,241,848 feet; in 1883, 1,320,855 feet; in 1882, 4,561,080 feet. New Zealand imported in 1886 1,018,143 feet; in 1885, 1,044,404 feet; in 1884, 1,173,460 feet; in 1883, 1,204,520 feet; and in 1882, 679,136 feet.

No necessity to import timber.

As already pointed out, although the Colony is endowed with great wealth of timber, not only of hardwood but of softwood and pine, the imports very largely exceed the exports. The imports, however, are chiefly pine and softwood. The pine grown in the Colony is in some respects inferior to both Oregon and kauri, hence the large importation of these timbers, but the softwoods of the country will bear favourable comparison with those of any part of the world, both for durability and beauty. They are easily wrought and well adapted for the finer kind of carpentry and cabinet-work, and it is only because they are so little known that the softwoods of the brush forests have not been more extensively used.

No. 20.—Specific Gravity and Tensile Strength of New South Wales Timber Trees, as compared with European and other Varieties of Timber:—

| Name of New South Wales timber trees. | Specific gravity. | Tensile strength per sq. inch. | Name of European, &c., timber trees. | Specific gravity. | Tensile strength per sq. inch. |
|---|---|---|---|---|---|
| Hardwoods— | | Tons. | | | Tons. |
| Red-flowering ironbark | 1·173 | 4·762 | English oak | ·893 | 3·337 |
| White ironbark | 1·109 | 4·463 | Teak | ·745 | 2·559 |
| Red ironbark | 1·159 | 3·669 | Mahogany | ·678 | 2·863 |
| Grey gum | ·996 | 3·937 | English ash | ·760 | 3·109 |
| Turpentine | ·899 | 3·113 | Fir Riga | ·541 | 2·342 |
| Blackbutt | 1·109 | 2·899 | Yellow pine | ·551 | 1·877 |
| Bastard box | 1·152 | 2·982 to 3·424 | Kauri pine (New Zealand) | ·550 | 2·867 |
| Stringybark | ·883 | 3·103 | Pitch pine (American) | ·659 | 2·885 |
| Red mahogany | ·891 | 3·281 to 3·992 | Cedar (American) | ·439 | 2·000 |
| Mountain ash | ·761 | 2·821 to 4·136 | | | |
| Messmate | ·933 | 2·521 to 3·419 | | | |
| Spotted gum | 1·101 | 2·821 to 3·571 | | | |
| Softwoods— | | | | | |
| Murrumbidgee pine | ·578 | 2·066 | | | |
| Richmond River pine | ·626 | 2·016 | | | |
| Red cedar | ·508 | 1·716 to 2·124 | | | |

## *FOREST CONSERVATION.*

Destruction of timber.

The necessity of preserving the timber resources of the Colony, and preventing the ruthless destruction of the best species of brush and hardwood, hitherto carried on by settlers and timber-getters, principally in the Clarence River district, and in the eucalyptus forests on the Murray, decided the Government, in 1871, to establish a certain number of forest reserves throughout the country, although permits to cut timber in these reserves were granted upon payment of a fixed fee. It soon became apparent that stringent regulations alone could put a stop to the reckless operations of the licensed timber-getters. But it was not until September, 1878, that regulations were issued. These appeared not a day too soon as the best species of cedar, which years ago abounded in the Clarence River districts, had been exploited to such a wasteful extent that the supply of this magnificent timber threatened to give out. Cutting down indiscriminately trees of all sizes, and clearing the lower lands of their best timber, the cedar-cutters, after disposing of all that could be cheaply transported, or that might be easily floated down the rivers in time of flood, left a considerable surplus of felled timber to lie and rot on the ground. They then travelled further north, to carry on the same systematic depredations along the rivers of the neighbouring Colony of Queensland.

In the gum forests of the Murray, the same system had been pursued. Considerable quantities of excellent timber were destroyed in the forest reserves of that part of the Colony, to the detriment of the district, which was deprived of its natural wealth, and to the injury of the Colony at large, which suffered the loss of much of its best timber without receiving an equivalent in revenue.

Formation of a Forest Conservation Branch, Department of Mines.

In 1875, the first office of Forest Ranger was created, and this led to the formation of a Forest Conservation Branch attached to the Department of Mines, which was established in March, 1882.

Since then the Colony has been subdivided into a number of districts, continually inspected by forest rangers, whose duty is to report on the existing state of proclaimed reserves, control the operations of licensed timber-getters, receive royalties on the various kinds of timber upon which such dues may be levied, and report upon applications to ringbark trees on Crown Lands, whether comprised in State forests, reserves, or otherwise.

Forest rangers

The number of forest rangers at present employed by the department is 28, with 10 assistants, and the number of timber reserves throughout the Colony in 1886 was 862, covering an area of 5,460,125 acres.

On the reserves subject to royalty, the quantity of timber cut in 1886, amounted to 8,021,266 superficial feet, besides 1,900 trees.

Shipment of timber.

The quantity of timber returned by the forest rangers as shipped from 29 coastal stations, exclusive of Sydney and Newcastle, which are ports of re-shipment, can only be ascertained for the year 1885, and was:—

| | | |
|---|---|---|
| Sawn timber, hardwood, and cedar | 57,418,631 | sup. feet. |
| Hardwood, piles, girders, and logs | 3,219,679 | ,, |
| Cedar in logs | 1,731,000 | ,, |
| Paving-blocks | 300,000 | ,, |
| Total | 62,669,310 | ,, |

| | | | |
|---|---|---|---|
| Besides | Piles | 2,350 | running feet. |
| | Do | 2,260 | number of. |
| | Sleepers | 31,407 | ,, |
| | Posts and rails | 185,600 | ,, |
| | Palings | 523,402 | ,, |
| | Spokes | 86,283 | ,, |
| | Felloes | 60,000 | ,, |
| | Dray shafts | 546 | ,, |
| | Laths | 2,315,900 | ,, |

Revenue from timber licenses.

The revenue derived from the issue of timber-licenses, from royalty, permits, and other dues, amounted in 1886 to £13,934, Revenue from forest reserves.

and the revenue received from the forest reserves of the Crown since the coming into force of the regulations proclaimed on the 24th of September, 1878, in each of the following years was—

| | £ | s. | d. |
|---|---|---|---|
| 1879 | 7,310 | 0 | 0 |
| 1880 | 8,328 | 0 | 0 |
| 1881 | 10,156 | 0 | 0 |
| 1882 | 12,327 | 0 | 0 |
| 1883 | 16,301 | 0 | 0 |
| 1884 | 17,565 | 0 | 0 |
| 1885 | 13,144 | 0 | 0 |
| 1886 | 13,934 | 0 | 0 |

or a total of £99,065, which, before the introduction of the present system would have been a loss to the country, without taking into consideration the much greater loss caused by the wasteful and indiscriminate felling carried on in former years. Under the present regulations, care is taken to preserve from destruction all timber below a certain girth, measured at a height of 5 feet from the ground, according to a careful classification of the various timbers at present in demand.

Girth of timber which may be felled.

The prescribed girth is set forth hereunder :—

*Hardwoods.*

| Timber. | Girth. ft. | in. | Timber. | Girth ft. | in. |
|---|---|---|---|---|---|
| Blackbutt | 7 | 6 | Blood-wood | 6 | 0 |
| Tallow-wood | 7 | 6 | Mountain ash | 6 | 0 |
| Red gum or flooded gum | 6 | 6 | Mahogany (forest) | 6 | 0 |
| Gray gum | 6 | 6 | *Ironbark (red, gray, and broad-leaved) | 6 | 0 |
| Woollybutt | 6 | 6 | Peppermint or red-wood | 5 | 6 |
| Brush or white box | 6 | 6 | Swamp mahogany | 5 | 6 |
| Turpentine | 6 | 6 | *Stringybark | 5 | 0 |
| Blue gum | 6 | 0 | Blackwood | 4 | 0 |
| Spotted gum | 6 | 0 | Yellow and white box | 4 | 0 |
| Messmate | 6 | 0 | | | |

*Softwoods, &c.*

| | | | | | |
|---|---|---|---|---|---|
| Red cedar | 9 | 0 | Black, red, or white pine (Frenela) | 3 | 0 |
| Hoop or Moreton Bay pine | 7 | 6 | Swamp oak | 3 | 0 |
| White beech (Gmelina) | 7 | 0 | Forest oak | 2 | 3 |
| Silky oak | 6 | 0 | | | |
| Rosewood | 6 | 0 | | | |

* West of Great Dividing Range, 4 feet.

Trees not named in this list may be cut at the minimum girth that may be endorsed on the license, or as specified in writing by the forest ranger in charge of the reserve.

State nursery and cultivation of trees.

The operations of the Forest Conservation Branch are not solely limited to the preservation of native trees. It is also charged with the creation of a State nursery, the site for which was selected at Wyong, in the beautiful district of Brisbane Water, where the acclimatization of valuable foreign timber trees, and the conservation of such of the best indigenous species, as might be otherwise likely to disappear, will be attended to. The formation of plantations in various parts of the Colony, and along railway lines, also forms part of a programme which is yearly becoming enlarged.

Plantations in forest reserves.

In the forest reserves of Orara and Dorrigo, in the north-eastern district of the Colony, cedar planting has been carried on for some years, under departmental supervision, and up to the end of 1885, 8,258 trees and root-cuttings of cedar trees, and self-sowing seedlings, had been counted in the latter reserve. Plantations of the American *Catalpa speciosa* were also made on the Railway Reserve at Cootamundra, and wattle plantations have been formed along the southern railway line from Minto to Burradoo.

During the year 1885, the Forest Conservation Branch collected a large number of varieties of the indigenous timber trees, which were afterwards on view at the London Colonial and Indian Exhibition; and another collection consisting of 214 specimens of different kinds of colonial timber, was prepared, and is now exhibited in the Geological Museum attached to the Department of Mines. Since that date 135 specimens of the best varieties of the New South Wales timbers were forwarded to the Adelaide International Exhibition.

State forests and timber reserves.

Reserves for the preservation of the timber supply are divided into two classes, viz., State Forests and Timber Reserves, and the latter are subdivided into three sub-classes, A, B, and C, according to their importance, and the particular quality and value of the timber which they contain.

Timber licenses and permits.

Licenses are issued to cut timber on reserves in class A at a fixed fee of £6 per annum, or 10s. per month, and without royalty; on reserves in class B the fee demanded amounts to £9, or 15s. per month; on reserves in class C general permits to cut timber for saw-mills are issued at a rate of £6 per annum, to which is added the payment of a royalty, which differs according to the value of the timber felled, and is based on the following classification :—

Saw-mill timber placed in the 1st class, 1s. 3d. per 100 superficial feet.
,, ,, 2nd ,, 1s. ,, ,,
,, ,, 3rd ,, 9d. ,, ,,
,, ,, 4th ,, 6d. ,, ,,
,, ,, 5th ,, 3d. ,, ,,

Timber-cutting on Crown lands.

Licenses are also issued to cut and remove timber on ordinary Crown lands—excepting State forests, timber reserves, reserves for public recreation, or for sites for towns and villages, or permanently dedicated for any public purpose; also lands within 1½ chain of any navigable river, or held under conditional lease, measured for sale, within an enclosure of less than 200 acres, or within half a mile of a head station. The fee in this case is fixed at £3 per annum, or 15s. per quarter, or 5s. for any current month, and the license enables the holder to cut and remove any kind of timber, except cedar. The license fee for cutting cedar, and for shipping wattle-bark, is fixed at £6 per annum, and no cedar-tree of less girth than 9 feet, measured at 5 feet from the ground, may be felled without special authority.

Permits to cut and strip bark.

Permits are also issued for cutting mining props, and for thinning out timber, for the purpose of improving the growth of the trees remaining, for cutting and removing from a reserve a specified number and kind of trees, and also for stripping wattle-bark, or the bark of other trees, for tanning purposes.

Penalties.

Infringements of the timber regulations are punishable with a fine not exceeding £5 for the first offence, £10 for the second, and £20 for the third, irrespective of the value of the timber and material destroyed, for which also the offender may be held responsible.

# PART VIII.

## Fauna.

THE fauna of New South Wales is characterized by the absence of the familiar forms of animal life common to the Old World, and the presence of genera and species peculiar to the Australian Continent.

### *MAMMALIA.*

The order of mammalia is represented in this Colony by the principal existing species of marsupials. The Macropidæ include several kinds of kangaroos and wallabies, the characteristics of which are too well known to need more than passing reference. The progress of settlement has driven these animals from the more densely-populated parts of the Colony, but in the country districts they are numerous enough to cause very considerable damage to the natural grasses. So serious has been the injury thus wrought that the State and run-holders pay a small sum per head for the destruction of the animals.

**Number of kangaroos, &c.**

The number of kangaroos and wallabies, as estimated by Inspectors of Stock, existing in the Colony in 1886, was about 4,800,000, and no fewer than 855,676 kangaroos and 506,372 wallabies, a total of 1,362,048 animals, were destroyed during the years 1885-6.

The genus Paramelidæ is represented by the wombat, and several kinds of rats and rabbit-rats, which latter burrow underground like their European prototype. They abound particularly in the western districts.

The Phalangystæ, which embrace several varieties of opossums, are found in all parts of New South Wales. Some of the specimens of this family are very handsome, their thick soft furs affording a valuable article of commerce. The skins of the prettily-marked members of the Dasquiridæ family, or native cats, are also in great demand.

The Echidnæ are represented by several varieties of "spring ant-eaters," somewhat resembling the English hedgehog. The favourite food of these animals is the various kinds of ants, which are found all over the country.

Flying foxes, and numerous varieties of bats, are also indigenous to New South Wales, and make great depredations among the fruit-trees.

Of all the animals found in the Colony, the most curious and interesting is, perhaps, the *Ornithorhynchus paradoxus*, or Duck-billed platypus, the fur of which is very highly prized.

Most of the animals above mentioned appear to be more destructive than useful, and if we except the trade in opossum and native cat furs, and kangaroo skins, the commercial value of the indigenous mammals is very small. They are being gradually displaced, as civilization advances, by the more useful animals of the Old World, for which the climate of New South Wales seems especially adapted, and which now form the principal source of the wealth of its inhabitants.

**Destruction of native animals.**

The destruction of the indigenous animals quickly follows the acclimatization of the more useful European species, and the wilds of the western districts of the Colony, which a few years ago were the abode of the kangaroo and the dingo, or native dog, are now the home of vast flocks.

**Extinct species.**

Geological research has brought to light the remains of numerous extinct species of gigantic mammalia. The largest of these prehistoric animals was the *Diprotodon*, a marsupial quadruped, which, according to Professor Owen, was as large as a rhinoceros or hippopotamus. Fossil remains of another large marsupial, the *Nototherium*, somewhat resembling a tapir, and of a marsupial lion (*Thylacoleo*) have also been discovered.

Bones of gigantic kangaroos (*Macropus titan*) have been frequently met with, as well as those of a species of wombat larger than that actually in existence.

The remains of animals belonging to two distinct genera, representatives of which still exist in Tasmania, the *Thylacinus*, or pouched hyena, and the *Sarcophilus*, more commonly known as the Tasmanian devil, have also been found in the fossilized state.

## *BIRDS.*

All the more important families of birds are represented in the fauna of New South Wales, which contains also a number of families peculiar to the Colony.

Variety of birds. Few countries can boast of a greater variety of beautiful birds. The parrot family is represented by a large number of species, including the love bird, the green parrot, many kinds of lorries, all gorgeously clothed ; and amongst the larger species, the white and black cockatoo, yellow and pink-crested, and the grey pink-crested gallahs. The family of honey-eaters (*Meliphagidæ*) is also represented by numerous and very beautiful varieties.

Amongst the larger kinds of birds found in the Colony are the *Megapodidæ*, which includes the brush turkey. These exist in great numbers in the western parts of the Colony, and their flesh is highly prized. In the western districts are also found the emu, the largest of Australian birds, and the native companion, a large water bird, somewhat like the crane in appearance.

In the more thickly-timbered parts of the brush forests, the home of the stately tree-fern, is found the lyre-bird, (*Menura superba*) a species of pheasant, whose tail forms a most gracefu ornament. Here also abound the satin-bird, species of regent-birds, and the rifle-bird, all famed for the beauty of their plumage.

Aquatic birds.

Amongst water-birds are several species of cranes, and enormous numbers of wild fowl of all descriptions, as well as black swans. The latter is essentially an Australian bird, and may be met with in all parts of the Colony.

The great kingfisher, or laughing-jackass, so named from its extraordinary cry, is one of the most useful of birds, owing to the readiness with which it destroys snakes. Magpies and mocking-birds may be included amongst those denizens of the forest which more prominently attract the attention of travellers. There are also several species of owls, and other night-birds, and the eagle family has not a few representatives.

The pigeon tribe.

The pigeon tribe is found in large numbers, especially in the great primæval forests of the coast districts. In the cedar brushes of the Liverpool Range the white-headed fruit pigeons are very numerous; and in the brush forests of the Clarence, the Richmond, the Macleay, and Illawarra, the top-knot and large-tailed pigeons, and the Wonga Wonga *(Leucosarcia picata)*, so prized for its large size and the whiteness and delicacy of its flesh, are very plentiful. The bronze-winged pigeon is common to almost all parts of the Colony. Several varieties of these birds are remarkable for their beautiful plumage, their size, and the excellence of their flesh. One of the finest varieties, the partridge bronze-winged pigeon, is found almost exclusively in the plains of the interior.

Doves are also numerous, and most of the species are extremely delicate and beautiful. The little turtle-dove of the Murray River *(Geopelia cuneatra)* is the prettiest specimen of this family.

Other varieties.

Besides the varieties of birds mentioned above, there are many others, of perhaps less note, but numerous, and frequently very beautiful. They are all, however, admirably described and depicted in the celebrated work of Dr. Gould, which occupies a high rank amongst the scientific publications of the century.

### *FISHES.*

The seas which wash the shores of New South Wales abound with fish, but none of the resources of the Colony has been so much neglected as the fishing industry. All the best fishing-grounds lie within a moderate distance of Sydney, and as pointed out by the Fisheries Commission, it is not necessary, in order to obtain the fish most adapted for food, to despatch large smacks or fishing vessels, victualled and equipped for a cruise of several months, to fishing grounds distant hundreds of miles from home. The coast of the Colony presents many natural features peculiarly favourable to the existence of a very large supply of the best food fishes. In the quiet waters of its numerous bays and estuaries, and in the vast lakes and lagoons communicating with the sea, are found shelter and sustenance, as well as excellent breeding-grounds.

The principal fishes found on the coast are not migratory, and as a consequence may nearly always be procured in the markets. Amongst the best known may be mentioned the following:—

The schnapper.

The schnapper (*pagrus unicolor*), the most valuable of all Australian fishes, is found along the whole extent of the coast, and is very abundant. It is a deep-water fish, found generally near rocky points or reefs running out into the sea. The schnappers "school," as it is termed, during the summer months, and are then most plentiful. The young fish, known as red bream, frequents the harbours and estuaries of the coast, but is never found in shallow water. The schnapper is caught by the hook, which it takes freely, as it will attack almost any bait. It sometimes attains a very large size, weighing as much as 30 lb.

The nannigai is a deep water fish, caught with the hook, and ranks high in public estimation as an edible fish. The supply is not large, as the fish is not specially sought after, being chiefly obtained by fishermen in search of schnapper.

The black rock-cod is considered one of the best of Australian fish, and is also a deep-water fish, never captured by the net. It is found more abundantly in the warmer waters of the north of the Colony, where, as a rule, it attains larger proportions than to the southward of Sydney. It grows to a great size, specimens from 35 to 40 lb. being not uncommon. Rock-cod

A fish of great size and beauty, known in Australia as the salmon, is found off the coast in prodigious quantities. It has no affinity whatever to the true salmon, and is inferior as an article of food.

The flathead, a fine fish, of which there are several varieties, is captured both by the hook and net. It is of excellent quality and ranks high amongst New South Wales fishes.

There are four species of whitings found in these waters. The common sand-whiting and the trumpeter-whiting are both very abundant, but the other two species are more rare. The sand-whiting is perhaps the fish most in demand in the metropolitan markets, where it is to be met with all the year round. Whitings

The jew-fish is the largest edible fish found on the New South Wales coast, attaining sometimes a length of 5 feet. It is found at all seasons, but most frequently during summer. The teraglin is of the same family as the jew-fish, though it does not reach an equal size. The air bladder is large and of excellent quality, being of great value for the making of isinglass.

The mackerel is obtained in enormous quantities off the coast, and sometimes even in the harbours. It is a good fish when eaten fresh, but it decomposes rapidly.

The family of Mugilidæ, or mullets, is well represented in Australian waters. The sea mullet is a large fish, often attaining a length of 2 feet, and a weight of 8 lb. It is regarded by some authorities as unsurpassed in richness and delicacy of flavour by any fish in the world; and it visits these shores in countless numbers in the season when it is in the best condition. While Mullets.

young the fish keeps entirely to the creeks and lakes, where it increases in size very rapidly, but when full-grown it seeks the open waters.

Gar-fish.

There are four species of gar-fish found on the New South Wales coast. The Sydney gar-fish is very abundant, especially towards the end of summer, making its appearance in shoals, sometimes of enormous size. The river gar-fish is even of better quality than the last mentioned, but is not so plentiful as formerly. The other species are seldom met with.

There are numerous other varieties, many of which are very valuable as articles of food, but they are for the most part neither so numerous nor so easily obtained as those which have been referred to.

Destructive fishes.

Destructive fishes are by no means rare; the shark family being largely represented, not only in the deep-sea, off the coast, but even in the harbours. The shark is not, however, absolutely valueless. The fins find a ready sale in the Chinese markets; the skin also has some commercial value, while from the liver is extracted a large quantity of valuable oil, equal in every respect to cod-liver oil.

Neglect of fisheries.

As already pointed out, the fisheries of New South Wales have been much neglected, and, as a further instance of this, it may be mentioned that although during the winter season immense shoals of herrings visit these coasts, no attempt is made to take and preserve them. The Rev. J. E. Tenison-Woods, the Hon. W. Macleay, and the members of the Fisheries Commission, have strongly directed attention to the value of this fish. It is quite as abundant, and superior in flavour, to the herring of Scotland, and preserved in oil, like sardines, would rival those delicacies. There is ample evidence that the application of a little capital, and intelligent management, would make the herring fishery a very profitable industry.

Fresh-water fish.

In Sydney the supply of fresh-water fish is very limited, although the rivers of the Colony produce some most excellent specimens. The rivers Murray, Murrumbidgee, Lachlan and Darling are the most plentifully stocked, the Murray cod *(Oligorus Mitchelli)* being perhaps the most highly esteemed of their fishes. Another fish of the same species is the *Oligorus Macquariensis*, which is to be met with in the upper branches of the Clarence. Both these specimens of Murray Cod have been found weighing as much as 100 lbs. The silver perch and several kinds of the Percidæ family, so highly prized for their delicacy, are plentiful in the rivers. In the Richmond River the cat-fish (*Copidoglanis Tandanus*) are very common, whilst herrings and mullet are caught in almost all the eastern rivers of the Colony.

**Fish acclimatization.**

No systematic attempt has yet been made to acclimatize European varieties of edible fishes, although success would most probably attend any efforts in this direction, every difficulty having been overcome in Victoria, New Zealand, and Tasmania.

**Shell-fish.**

Among the Crustaceæ, which abound on the coast and in the water-courses of the interior, the lobster and several varieties of salt and fresh-water crayfish are most noticeable.

Oysters are very excellent and plentiful. The oyster-beds of Port Jackson, however, have been greatly injured, and the markets of the metropolis are supplied from Port Stephens, Broken Bay, the Clarence, and other ports on the coast.

Before the appointment of the Royal Commission of Fisheries, in 1880, these molluscs were threatened with extinction in the near future, but the Government has now issued regulations for the conduct of this industry, with a view to prevent the wholesale destruction which was formerly carried on.

**Oyster culture**

There is but little doubt that the establishment of "parcs" like those which may be seen along the coasts of France and Belgium, where oyster culture is conducted on the most scientific principles, would be remunerative, as the demand for this delicacy is great and continually increasing.

## *REPTILES.*

The snake and lizard families number many varieties, which are distributed over all parts of the country. These reptiles, however, have generally disappeared from the settled portions of the Colony, having been deprived of the means of subsistence which the condition of the country in its natural state afforded them.

Venomous snakes.

Several species of snakes are venomous, particularly the death-adder, the black snake, the brown, and the tiger snake, but accidents due to snake bite are now of rare occurrence. Most reptiles retreat at the approach of man, and there is comparatively little danger to be apprehended from their presence.

Lizards are common, very beautifully marked, and some species, particularly the iguanas, attain a considerable size.

Although the rivers of the neighbouring Colony of Queensland are the abode of several species of alligators, the rivers of New South Wales are entirely free from the presence of these dangerous saurians.

# PART IX.

## Population and Vital Statistics.

THE population of New South Wales at the middle of the year 1887 was probably more numerous than that of any other Colony belonging to the Australasian group. The first position in regard to population was assumed by Victoria in 1854, when she had within her borders more persons than were contained in this Colony, which then included the large territory of Queensland. Year by year the gap between the Mother Colony and her vigorous offspring widened, until in the year 1873, the population of New South Wales was less numerous than that of Victoria by about 236,000 or nearly 43 per cent. Since then the difference has been gradually lessened, till, during the current year, it entirely disappeared. Estimating by the excess of births over deaths, and the excess of arrivals over departures by sea, the population of the Australasian Colonies stood thus at the close of the year 1886 :—

N.S.W the most populous colony.

| | |
|---|---|
| New South Wales | 1,030,901 |
| Victoria | 1,033,043 |
| New Zealand | 589,386 |
| Queensland | 343,768 |
| South Australia | 312,439 |
| Tasmania | 137,211 |
| Western Australia | 40,084 |
| Apparent population | 3,486,832 |

Such a means of estimating population is admittedly defective. In New South Wales the population estimated in this manner, was found at the census of 1881 to be 29,952 in excess, while in Victoria the excess amounted to 67,437. Even in New Zealand, an insular Colony, where all arrivals and departures are by sea, the population at the census of 1886 was less than the number as estimated from year to year by 7,355. This excess for the most part consists of unrecorded departures by sea. Allowing for the departure of persons whose names were not returned to the Customs authorities, the estimated population of New South Wales at the end of 1886 was 1,001,966, while that of the other Australian colonies was—

| | |
|---|---|
| Victoria | 1,003,043 |
| New Zealand | 589,386 |
| Queensland | 342,614 |
| South Australia | 312,758 |
| Tasmania | 137,211 |
| Western Australia | 39,584 |

or a total population of 3,426,562 souls for the whole group of colonies.

The estimated population of the Colony at the close of each year will be found hereunder.

Estimated population of the Colony.

No. 21.—Estimated Population of the Colony, on the 31st December in each year, from 1861 to 1886:—

| Year. | Males. | Females. | Total. |
|---|---|---|---|
| 1861 | 201,574 | 156,404 | 357,978 |
| 1862 | 204,199 | 162,522 | 366.721 |
| 1863 | 207,560 | 170,152 | 377,712 |
| 1864 | 213,365 | 177,499 | 390,864 |
| 1865 | 223,254 | 185,893 | 409,147 |
| 1866 | 235,116 | 193,697 | 428,813 |
| 1867 | 243,131 | 201,578 | 444,709 |
| 1868 | 254,003 | 209,185 | 463,188 |
| 1869 | 263,899 | 217,549 | 481,448 |
| 1870 | 272,543 | 226,116 | 498,659 |
| 1871 | 282,846 | 234,912 | 517,758 |
| 1872 | 292,015 | 243,204 | 535,219 |
| 1873 | 301.399 | 252,434 | 553,833 |
| 1874 | 312,843 | 262,100 | 574,943 |
| 1875 | 323,080 | 271,217 | 594,297 |
| 1876 | 333,515 | 280,666 | 614,181 |
| 1877 | 350,329 | 293.378 | 643,707 |
| 1878 | 365,625 | 306,263 | 671,888 |
| 1879 | 386,926 | 322,533 | 709,459 |
| 1880 | 405.277 | 336.616 | 741,893 |
| 1881 | 426,944 | 351,746 | 778,690 |
| 1882 | 443,314 | 367,519 | 810,833 |
| 1883 | 470,009 | 387,735 | 857,744 |
| 1884 | 495,571 | 408,377 | 903.948 |
| 1885 | 527,533 | 430,381 | 957,914 |
| 1886 | 551,343 | 450,623 | 1,001,966 |

Change in relative population of N.S.W. and Victoria.

Three causes have combined to bring about the satisfactory change which has reversed the relative positions of Victoria and New South Wales in regard to population—the natural increase by births over deaths, the selection of this Colony as a place of settlement by a large number of unassisted immigrants, and the assistance given by the Government to persons in the United Kingdom, and elsewhere, to make New South Wales their home.

Annual increase.

Regarding the first of these causes, it may be mentioned, that owing to its very satisfactory birth-rate, the Colony now receives yearly an addition to its population of 5,000 more than its southern neighbour.

The increase of population, from the excess of births and immigration over deaths and departures, has been fairly regular. In 1879, the year of the Sydney International Exhibition, there was a very marked increase in the excess of arrivals over departures, and though, as would naturally be expected, the subsequent year showed a falling off, the impetus given to immigration to the Colony by the Exhibition is still being felt.

Largest increase in 1885.

The largest increase of population in any one year occurred in 1885, when owing to the depression prevailing in some of the neighbouring colonies, large numbers of adult males flocked to New South Wales, in search of a livelihood they could scarcely obtain elsewhere. The result of this influx was felt the following year, in the congestion of the local labour market. Numbers of persons were unable to find employment, and their circumstances were considerably aggravated by the unfortunate season which the Colony was passing through.

Net increase.

The following table gives the net increase of population during each year, after allowing for numbers of persons who left the Colony without having their departure formally recorded.

No. 22.—Increase of Population, male and female, for each year since 1871 :—

| Year. | Males. | Females. | Total. | Year. | Males. | Females. | Total. |
|---|---|---|---|---|---|---|---|
| 1871 | 10,303 | 8,796 | 19,099 | 1879 | 21,301 | 16,270 | 37,571 |
| 1872 | 9,169 | 8,292 | 17,461 | 1880 | 18,351 | 14,083 | 32,434 |
| 1873 | 9,384 | 9,230 | 18,614 | 1881 | 21,667 | 15,130 | 36,797 |
| 1874 | 11,444 | 9,666 | 21,110 | 1882 | 16,370 | 15,773 | 32,143 |
| 1875 | 10,237 | 9,117 | 19,334 | 1883 | 26,695 | 20,216 | 46,911 |
| 1876 | 10,435 | 9,449 | 19,884 | 1884 | 25,572 | 20,642 | 46,214 |
| 1877 | 16,814 | 12,712 | 29,526 | 1885 | 31,952 | 22,004 | 53,956 |
| 1878 | 15,296 | 12,885 | 28,181 | 1886 | 23,810 | 20,242 | 44,052 |

**Marked advantages of N.S.W. to settlers.**

As tested by the voluntary influx of population, the advantages which New South Wales has for many years offered to the settler are most marked, and surely no test could be more practical. As long as the balance of attraction remained with the other colonies, so long did the tide of immigration set to their shores; but for many years past this Colony has offered a more substantial reward to the settler than any other colony, and the result is seen in the increased numbers who have come hither.

Taking the ten years from 1876 to the close of 1886, the total excess of arrivals over departures in all the Australasian Colonies amounted to 528,289. Of this number not less than 218,726, or 41·40 per cent. found a home in this Colony. Only 87,217, or 16·51 per cent., went to Victoria ; 20·99 per cent. to Queensland ; 13·52 per cent. to New Zealand ; 5·14 per cent. to South Australia ; and 2·37 to the other colonies of the group.

No more eloquent tribute could be paid to the resources of New South Wales than is conveyed by the bare statement of these figures.

**Estimates of population misleading.**

As elsewhere pointed out, the apparent excess of arrivals over departures does not represent the actual increase in population from abroad, since numerous departures are not recorded. The figures given above for the period 1876-86 are, to this extent, misleading, as they represent an increase in population in excess of what actually took place. Fairly exact figures are, however, obtainable, for the ten years 1871-80; and the relative attraction of the leading colonies on the mainland of Australia to the immigrant will be seen from table No. 23 below.

No. 23.—Increase of Population by Excess of Immigration to New South Wales, Victoria, Queensland, and South Australia, from 1871 to 1880 :—

| Colony. | Excess of arrivals over departures. | Excess of departures over arrivals. | Per-centage of total arrivals. Increase. | Per-centage of total arrivals. Decrease. |
|---|---|---|---|---|
| New South Wales... | 100,016 | ............ | 51·59 | ............ |
| Victoria............... | ............ | 14,686 | ............ | 7·57 |
| Queensland ......... | 66,584 | ............ | 34·34 | ............ |
| South Australia ... | 41,953 | ............ | 21·64 | ............ |

Excess of arrivals ...................................... 193,867

Excess of Emigration in Victoria.

This table shows that the population of this Colony was enriched by arrivals to the number of 100,016 persons, Queensland by 66,584, and South Australia by 41,953, while Victoria lost about 14,686 persons, by excess of departures alone.

Since 1860, the year following the separation of Queensland, the arrivals in the Colony have in every year exceeded the departures. The greatest apparent excess during any one year was in 1885, when the number of arrivals was greater than the departures by 39,683. From the date of the separation of Queensland to the close of the year 1886, the Colony has benefited by arrivals to the extent of about 363,397. The total number of persons arriving here during the period just mentioned was 919,131, and of this number 77,095 were State assisted.

Assisted Immigration.

Assisted immigration dates from 1832, and has continued to be the settled policy of the country, with slight interruptions, until its cessation during the past year. The number of assisted immigrants arriving here from 1860 to the close of 1886, will be found below.

No. 24.—Number of Assisted Immigrants arriving in the Colony during each year :—

| Year. | Adults. | | | Children. | | | Total. |
|---|---|---|---|---|---|---|---|
| | Males. | Females. | Total. | Males. | Females. | Total. | |
| 1860 | 1,351 | 1,235 | 2,586 | 245 | 258 | 503 | 3,089 |
| 1861 | 793 | 595 | 1,389 | 101 | 99 | 200 | 1,589 |
| 1862 | 1,172 | 1,047 | 2,219 | 214 | 198 | 412 | 2,631 |
| 1863 | 1,966 | 1,872 | 3,838 | 391 | 404 | 795 | 4,633 |
| 1864 | 1,701 | 1,672 | 3,373 | 289 | 315 | 604 | 3,977 |
| 1865 | 1,073 | 1,214 | 2,287 | 213 | 217 | 430 | 2,717 |
| 1866 | 501 | 543 | 1,044 | 92 | 68 | 160 | 1,204 |
| 1867 | 385 | 435 | 820 | 66 | 58 | 124 | 944 |
| 1868 | 183 | 215 | 398 | 41 | 31 | 72 | 470 |
| 1869 | ...... | ...... | 47 | ...... | ...... | ...... | 47 |
| 1870 | ...... | ...... | ...... | ...... | ...... | ...... | ...... |
| 1871 | 28 | 299 | 327 | 15 | 15 | 30 | 357 |
| 1872 | 25 | 271 | 296 | 16 | 14 | 30 | 326 |
| 1873 | 13 | 119 | 132 | 3 | 5 | 8 | 140 |
| 1874 | 427 | 411 | 838 | 109 | 133 | 242 | 1,080 |
| 1875 | 395 | 324 | 719 | 135 | 119 | 254 | 973 |
| 1876 | 642 | 429 | 1,071 | 208 | 184 | 392 | 1,463 |
| 1877 | 2,892 | 1,627 | 4,519 | 743 | 756 | 1,499 | 6,018 |
| 1878 | 2,091 | 1,754 | 3,845 | 699 | 646 | 1,345 | 5,190 |
| 1879 | 1,906 | 2,141 | 4,047 | 840 | 844 | 1,684 | 5,731 |
| 1880 | 1,150 | 1,195 | 2,345 | 414 | 375 | 789 | 3,134 |
| 1881 | 929 | 1,029 | 1,958 | 327 | 292 | 619 | 2,577 |
| 1882 | 1,209 | 991 | 2,200 | 509 | 524 | 1,033 | 3,233 |
| 1883 | 3,370 | 2,718 | 6,088 | 1,154 | 1,127 | 2,281 | 8,369 |
| 1884 | 2,785 | 2,606 | 5,391 | 1,095 | 1,082 | 2,177 | 7,568 |
| 1885 | 1,871 | 2,211 | 4,082 | 736 | 736 | 1,472 | 5,554 |
| 1886 | 1,044 | 1,905 | 2,949 | 572 | 560 | 1,132 | 4,081 |
| Total... | 29,903 | 28,858 | 58,808 | 9,227 | 9,060 | 18,287 | 77,095 |

Birth-places of immigrants.

The birth-places of all immigrants cannot be accurately determined, but it is quite clear, from the different census returns, that the great bulk have come from the United Kingdom, as will presently appear. A record, however, has been kept of the native countries of the immigrants at the public expense, and of the

77,095 persons enumerated in the foregoing table, 75,468 were British born—35,950 being from England and Wales, 31,472 from Ireland, and 8,046 from Scotland, the remainder, 1,627, being from other countries.

Chinese undesirable as colonists.

The uniformity with which the different Colonies have passed laws restricting the immigration of Chinese, and prohibiting their landing, except upon the payment of a heavy poll-tax, may be taken as some evidence of the undesirability of the race as colonists. At the census of 1861 there were in the Colony 12,988 Chinese; in 1871 the number had fallen to 7,220; but in 1881 it had increased to 10,205, while the estimated number in 1886 was 13,500. For many years New South Wales offered little inducement to the Chinese as a place of settlement, the superior attractiveness of Victoria, and other colonies, as gold producers claiming their attention. At the rush to Lambing Flat in 1860, however, large numbers of Chinese came across the border and established themselves in this Colony, their strength being constantly recruited by fresh arrivals from China; but these Chinese did not remain in the Colony, for at the census of 1871 there were 5,768 less than ten years previously. The numbers arriving and departing since that date will be found in the following table.

No. 25.—Immigration and Emigration of Chinese:—

| Year. | Arrivals. | Departures. | Year. | Arrivals. | Departures. |
|---|---|---|---|---|---|
| 1871 | 426 | 441 | 1879 | 1,979 | 557 |
| 1872 | 229 | 597 | 1880 | 2,942 | 876 |
| 1873 | 406 | 400 | 1881 | 4,465 | 929 |
| 1874 | 863 | 933 | 1882 | 1,007 | 884 |
| 1875 | 625 | 1,209 | 1883 | 1,936 | 1,402 |
| 1876 | 696 | 940 | 1884 | 2,191 | 1,038 |
| 1877 | 884 | 490 | 1885 | 2,929 | 1,726 |
| 1878 | 2,485 | 1,560 | 1886 | 3,092 | 1,883 |

Influx of Chinese.

It will be seen that 1878 and the following years are marked by a large increase in the arrivals from China. The influx appeared in 1881 sufficiently formidable to demand the interference of the Legislature. Accordingly the Influx of Chinese Prevention Act was passed, with the result that the subsequent year was marked by a decrease in the arrivals to the extent of 3,458, since which time there has been a steady increase. It would seem, from a comparison of the amount of poll-tax collected with the recorded arrivals, that a very considerable proportion of the Chinese immigrants were already British subjects, or had availed themselves of the privilege granted by the Act of being absent from the Colony for a period of nine months without paying a second tax. Still, the large excess of Chinese not paying the tax would favour the supposition that some evasion must be practised.

| Year. | Chinese arriving. | Chinese paying Poll-tax. | Chinese not paying Poll-tax. |
|---|---|---|---|
| 1882 | 1,007 | 852 | 155 |
| 1883 | 1,936 | 1,220 | 716 |
| 1884 | 2,191 | 1,074 | 1,117 |
| 1885 | 2,929 | 1,060 | 1,869 |
| 1886 | 3,092 | 1,284 | 1,808 |

The emigration of Chinese is large compared with the arrivals. This is especially marked of late years, the exodus during 1886 having been larger than in any previous year.

Tendency of immigrants to live in cities.

There is a common tendency operating in all new countries for immigrants to locate themselves in and near the large cities. This Colony has been no exception to the rule, and it will be seen from subsequent tables that the per-centage of British and Foreign born in the metropolis is higher than for the whole Colony, and the native born correspondingly lower.

Proportion of native-born increasing.

As far back as 1861, when the native-born population amounted to only 45·68 per cent. of that of the whole Colony, the number living in Sydney and its suburbs formed only 42·92 per cent. of the total, while the British born colonists, amounting to 46·18 per cent. of the population, constituted 51·01 per cent. of the metropolitan population. No great difference is observable between the proportion of persons attracted to New South Wales from other Colonies who remained in Sydney during late years, and those who made the country districts their home. What difference there is favours the supposition that Sydney has proved more attractive. The non-British population have as a rule preferred the country districts to Sydney, but of late years there has been a tendency on the part of certain foreign elements to gravitate towards Sydney; this is especially noticeable amongst the Chinese.

Native-born population largest in country.

The following table shows the proportion per cent. of each element of the population at the three periods 1861, 1871, and 1881, to the whole city population, and also the proportion which each bore to the whole community:—

Birth-places of the People.

| Year. | Native Born. | | Other Australians. | | English, Irish, and Scotch. | | Foreign. | |
|---|---|---|---|---|---|---|---|---|
| | Per cent. of population, metropolitan. | Per cent. of total population. | Per cent. of population, metropolitan. | Per cent. of total population. | Per cent. of population, metropolitan. | Per cent. of total population. | Per cent. of metropolitan population. | Per cent. of total population. |
| 1861 | 42·92 | 45·68 | 1·81 | 1·34 | 51·01 | 46·18 | 3·94 | 6·80 |
| 1871 | 54·22 | 58·38 | 3·07 | 2·67 | 39·33 | 34·56 | 3·33 | 4·20 |
| 1881 | 56·87 | 61·96 | 6·17 | 6·94 | 33·36 | 27.74 | 3·60 | 4·14 |

Racial composition of people.

The racial composition of the people at the last three census will be seen from the following table.

No. 26.—Composition of the People at the Census 1861, 1871, 1881 :—

| Nationality. | 1861. | 1871. | 1881. |
|---|---|---|---|
| | per cent. | per cent. | per cent. |
| New South Wales | 45·68 | 58·38 | 61·96 |
| Other Colonies | 1·34 | 2·67 | 6·94 |
| Aborigines | ... | 0·19 | 0·22 |
| English | 23·98 | 17·33 | 14·31 |
| Irish | 15·62 | 12·49 | 9·21 |
| Scotch | 5·20 | 3·98 | 3·34 |
| Welsh | 0·39 | 0·37 | 0·41 |
| Other British subjects | 0·99 | 0·38 | 0·47 |
| Total, British subjects | 93·20 | 95·80 | 95·86 |
| Chinese | 3·71 | 1·43 | 1·36 |
| German | 1·56 | 1·32 | 1·00 |
| Other Foreigners | 1·53 | 1·45 | 1·78 |
| Total, Foreigners | 6·80 | 4·20 | 4·14 |

One of the most noticeable problems in the progress of modern civilization is the tendency everywhere exhibited in the chief countries of the world for the population to accumulate in great cities. Not only is this apparent in England, France, and other countries where the development of manufactures has brought about an entire change in the employment of the people, and necessarily caused their aggregation in towns, but it is seen also in the United States, the most favoured country for the agricultural labourer.

Comparison of Colonies with America.

The conditions of progress in these Colonies approximate somewhat to those of the United States, and a comparison between the increase of town population there and in New South Wales is not without interest. The great defect in the comparison arises from the fact that in America there exist many large cities; in this

Colony we have practically only one. The population of the United States for three periods, and the proportion of rural to city population, will be seen below :—

| Year. | Population of United States. | Population of Cities. | Per-centage of whole population in Cities. |
|---|---|---|---|
| 1860 ...... | 31,443,321 | 5,072,256 | 16·1 |
| 1870 ...... | 38,558,371 | 8,071,875 | 20·7 |
| 1880 ...... | 50,155,783 | 11,318,547 | 22·5 |

Causes which lead to increase in cities.

The rapid increase of city population shown above has been the cause of considerable speculation, both in America and in Europe. It seems an established fact that the movement of population towards the towns in the old countries of the world is a sign of improvement in the circumstances of the ruder population; for, like every other commodity, labour gravitates to the market where it will obtain the highest price. In America, the increase in town population has come mainly from abroad; and there seems no reason to suppose that, large as the proportion of urban population has become, it has reached an unhealthy stage.

Urban and rural population.

In this Colony the proportion of town population is even more remarkable than in the United States, as will be seen from the table given below.

Per-centage of Population of New South Wales living in Sydney and Suburbs :—

| Year. | Metropolitan. | Country. |
|---|---|---|
| 1861 .............................. | 26·70 | 73·30 |
| 1871 .............................. | 26·73 | 73·27 |
| 1881 .............................. | 29·40 | 70·60 |
| 1885 .............................. | 32·95 | 67·05 |
| 1886 .............................. | 33·20 | 66·80 |

In regard to the neighbouring Colony of Victoria, the figures are :—

| Year. | Metropolitan. | Country. |
|---|---|---|
| 1861 .............................. | 25·89 | 73·11 |
| 1871 .............................. | 28·27 | 71·73 |
| 1881 .............................. | 32·81 | 67·19 |
| 1885 .............................. | 35·42 | 64·58 |
| 1886 .............................. | 37·05 | 62·95 |

In the table of urban population of the United States given above is included the population of all towns exceeding 8,000 inhabitants; nevertheless, the proportion to the whole is much less than in either New South Wales or Victoria. The case of Melbourne is even more marked than that of Sydney; for during the twenty-five years given in the table, the former city increased proportionately more than the latter, as compared with the population of its Colony, though its numerical increase has not been so great.

No. 27.—Population of the City and Suburbs of Sydney and Melbourne:—

| Year. | Sydney. | Melbourne. |
|---|---|---|
| 1861 | 95,596 | 139,860 |
| 1871 | 134,747 | 206,780 |
| 1881 | 224,211 | 282,947 |
| 1884 | 289,201 | 322,690 |
| 1885 | 313,652 | 345,380 |
| 1886 | 332,709 | 371,630 |

Extraordinary progress of Sydney and Melbourne.

The progress of these cities has been extraordinary, and has no parallel amongst the cities of the Old World. Even in America the rise of the great cities has been accompanied by a somewhat corresponding increase in the rural population. In these colonies, perhaps for the first time in the history of the world, is seen the spectacle of magnificent cities growing with wonderful rapidity, and embracing within their limits one-third of the population of the territory on which they depend. The chief cities of the other Australian Colonies present somewhat similar features to Sydney and Melbourne, but with the exception of Adelaide, which contains about two-fifths of the whole population of South Australia, they are not so large in proportion to their rural population as either Sydney or Melbourne. The estimated population of these cities is given below.

No. 28.—Population of Chief Cities of the Australian Colonies:—

| City. | Population. | Year. |
|---|---|---|
| Sydney | 332,709 | 1886 |
| Melbourne | 371,630 | 1886 |
| Adelaide | 127,013 | 1885 |
| Brisbane | 51,683 | 1886 |
| Auckland | 57,048 | 1886 |
| Hobart | 29,400 | 1885 |

Growth of Sydney.

Sydney stands alone amongst Australian cities for convenience of position and natural advantages for external and internal trade. Nor has the progress it has made in wealth and population, been less than expectation warranted.

The growth of population within the municipal boundaries of the city of Sydney forms an interesting feature in the progress of the Colony. In the table given below the population set down for the years previous to 1871 is that ascertained at the date of different census; from 1871 the figures show the estimated population at the close of the year.

No. 29.—Estimated Population of the City of Sydney within its Municipal Boundaries :—

| Year. | Persons. | Male. | Female. | Year. | Persons. | Male. | Female. |
|---|---|---|---|---|---|---|---|
| 1828 | 10,815 | 7,408 | 3,407 | 1875 | 85,267 | 43,191 | 42,076 |
| 1833 | 16,232 | 9,813 | 6,419 | 1876 | 87,261 | 44,440 | 42,821 |
| 1836 | 19,729 | 12,111 | 7.618 | 1877 | 91,008 | 46,832 | 44,176 |
| 1841 | 29,973 | 17,169 | 12,804 | 1878 | 94,228 | 48,809 | 45,419 |
| 1846 | 38,358 | 20,810 | 17,548 | 1879 | 98,824 | 51,748 | 47,076 |
| 1851 | 44,240 | 22,296 | 21,944 | 1880 | 102,161 | 53,910 | 48,251 |
| 1856 | 53,358 | 26,396 | 27,032 | 1881 | 106,578 | 56,793 | 49,785 |
| 1861 | 56,394 | 27,285 | 29,109 | 1882 | 110,112 | 58,828 | 51,284 |
| 1871 | 77,680 | 38,631 | 39,049 | 1883 | 115,847 | 62,603 | 53,244 |
| 1872 | 79,455 | 39,668 | 39,787 | 1884 | 121,441 | 66,152 | 55,289 |
| 1873 | 81,482 | 40,774 | 40,708 | 1885 | 127,859 | 70,498 | 57,361 |
| 1874 | 83,631 | 42,123 | 41,508 | 1886 | 132,846 | 73,277 | 59,569 |

Growth of metropolitan population.

At the census of 1861, the population of the whole metropolis was 83,754, ten years later it had risen to 134,747, while at the census of 1881, the number had reached 224,211, and in 1886 the estimated number of persons in Sydney and its suburbs was, as already stated, 332,709.

The progress of the population in the city and suburbs will be found in the following table, which also includes the country districts, and the whole Colony, commencing with the year 1870.

No. 30.—Estimated Population of the Colony, City, Suburbs, and Country Districts, on 31st December in each year, 1870–86 :—

| Year. | Colony. | | | City. | | | Suburbs. | | | Country. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Males. | Females. | Total. | Males. | Females. | Total. | Males. | Females. | Total. | Males. | Females. | Total. |
| 1870 | 272,543 | 226,116 | 498,659 | 37,349 | 38,144 | 75,493 | 28,497 | 30,588 | 59,085 | 206,697 | 157,384 | 364,081 |
| 1871 | 282,846 | 234,912 | 517,758 | 38,631 | 39,049 | 77,680 | 30,662 | 32,279 | 63,941 | 213,553 | 163,584 | 377,137 |
| 1872 | 292,015 | 243,204 | 535,219 | 39,668 | 39,787 | 79,455 | 32,440 | 33,870 | 66,310 | 219,907 | 169,547 | 389,454 |
| 1873 | 301,399 | 252,434 | 553,833 | 40,774 | 40,708 | 81,482 | 34,207 | 35,757 | 69,964 | 226,418 | 175,969 | 402,387 |
| 1874 | 312,843 | 262,100 | 574,943 | 42,123 | 41,508 | 83,631 | 36,583 | 37,964 | 74,547 | 234,137 | 182,628 | 416,765 |
| 1875 | 323,080 | 271,217 | 594,297 | 43,191 | 42,076 | 85,267 | 38,756 | 40,052 | 78,808 | 241,133 | 189,089 | 430,222 |
| 1876 | 333,515 | 280,666 | 614,181 | 44,440 | 42,821 | 87,261 | 41,939 | 42,314 | 83,253 | 248,136 | 195,531 | 443,667 |
| 1877 | 350,329 | 293,378 | 643,707 | 46,832 | 44,176 | 91,008 | 45,019 | 46,298 | 91,317 | 258,478 | 202,904 | 461,382 |
| 1878 | 365,625 | 306,263 | 671,888 | 48,809 | 45,419 | 94,228 | 48,358 | 50,360 | 98,718 | 268,458 | 210,484 | 478,942 |
| 1879 | 386,926 | 322,533 | 709,459 | 51,748 | 47,076 | 98,824 | 53,547 | 45,901 | 109,448 | 281,631 | 219,556 | 501,187 |
| 1880 | 405,277 | 336,616 | 741,893 | 53,910 | 48,251 | 102,161 | 57,932 | 60,078 | 118,010 | 293,435 | 228,287 | 521,722 |
| 1881 | 426,944 | 351,746 | 778,690 | 56,793 | 49,785 | 106,578 | 63,746 | 64,968 | 128,714 | 306,405 | 236,993 | 543,398 |
| 1882 | 443,314 | 367,519 | 810,833 | 58,828 | 51,284 | 110,112 | 67,629 | 70,490 | 138,119 | 316,857 | 245,745 | 562,602 |
| 1883 | 470,009 | 387,735 | 857,754 | 62,603 | 53,244 | 115,847 | 74,530 | 78,420 | 152,950 | 332,876 | 256,071 | 588,947 |
| 1884 | 495,581 | 408,377 | 903,958 | 66,152 | 55,289 | 121,441 | 81,194 | 86,566 | 167,760 | 348,225 | 266,522 | 614,747 |
| 1885 | 527,533 | 430,381 | 957,914 | 70,498 | 57,361 | 127,859 | 90,291 | 95,502 | 185,793 | 366,744 | 277,518 | 644,262 |
| 1886 | 551,343 | 450,623 | 1,001,966 | 73,277 | 59,569 | 132,846 | 98,321 | 101,542 | 199,863 | 379,745 | 289,512 | 669,257 |

The increase of the city population during the sixteen years which closed with 1886 has been 76 per cent., and of the suburbs 238 per cent., while that of the country districts amounted to 83 per cent.

Area of the metropolis.

The area occupied by the city proper, not including Moore Park, comprises 2,000 acres, and that of the suburbs on the south side of the harbour 96 square miles, equal to nearly 100 square miles, for the whole metropolis. The population at the end of 1886 was, for the city 66·4 persons per acre, and 3·25 per acre for the suburbs. The area of Melbourne and suburbs has been estimated at 256 square miles, with a population at the close of the year 1886 of 371,630. The area taken for Melbourne is an arbitrary one, being that included within a radius of 10 miles of the centre of the city. An area of 256 square miles around Sydney would include Parramatta and district, with the population dwelling therein, which at the close of 1886 was probably not less than 350,000—a number considerably less than the Melbourne metropolitan population.

Suburbs of Sydney.

The suburbs of Sydney comprise twenty-nine distinct municipalities. The population of those in existence at the date of the last census, and at the end of the year 1886, will be found below.

No. 31.—Population of the various Municipalities:—

| Municipality. | Population at Census of 1881. | Estimated population at close of 1886 |
|---|---|---|
| Alexandria | 3,449 | 9,586 |
| Ashfield | 4,087 | 8,145 |
| Balmain | 15,063 | 22,678 |
| Botany West | 858 | 1,520 |
| Burwood | 2,472 | 4,842 |
| Camperdown | 3,522 | 5,142 |
| Canterbury | 1,175 | 2,133 |
| Darlington | 2,026 | 3,116 |
| Five Dock | 888 | 1,260 |
| The Glebe | 10,500 | 14,003 |
| Hunter's Hill | 2,282 | 3,100 |

| Municipality. | Population at Census of 1881. | Estimated population at close of 1886. |
|---|---|---|
| Leichhardt | 1,866 | 10,976 |
| Macdonaldtown | 1,870 | 4,257 |
| Manly | 1,327 | 2,668 |
| Marrickville | 3,501 | 9,326 |
| Newtown | 8,327 | 11,983 |
| North Willoughby | 1,411 | 2,248 |
| Paddington | 9,608 | 14,802 |
| Petersham | 3,413 | 8,146 |
| Randwick | 2,079 | 3,636 |
| Redfern | 10,868 | 19,173 |
| Ryde | 1,673 | 1,863 |
| St. Leonards East | 2,320 | 4,460 |
| St. Leonards | 2,647 | 4,610 |
| St. Peters | 2,272 | 4,208 |
| Victoria | 2,182 | 3,015 |
| Waterloo | 5,762 | 7,986 |
| Waverley | 2,365 | 7,205 |
| Woollahra | 6,168 | 8,432 |

Towns over 2,500 inhabitants.

The towns of more than 2,500 inhabitants at the census of 1881 were only fifteen in number, as follows:—

No. 32.—Population of Chief Towns at Census of 1881.

| Town. | Population at Census of 1881. |
|---|---|
| Newcastle | 8,986 |
| Parramatta | 8,432 |
| Maitland | 7,304 |
| Bathurst | 7,221 |
| Goulburn | 5,881 |
| Albury | 4,040 |
| Wagga Wagga | 3,975 |
| Grafton | 3,891 |
| Tamworth | 3,612 |
| Temora | 3,254 |
| Dubbo | 3,199 |
| Orange | 2,701 |
| Deniliquin | 2,506 |
| Vegetable Creek | 2,670 |
| Lambton | 2,512 |

Besides the towns named in the above list there were forty-four whose population was between 1,000 and 2,500, and 216 towns and villages exceeding 100, and less than 1,000 in population.

The great bulk of the population dwells along the seaboard. Outside the metropolis the most thickly peopled districts are the fertile valleys of the rivers. Amongst these, in point of population, the Hunter River valley, with large agricultural and mining industries, stands first. The Illawarra district, rich in coal and pasture, comes next; then the maize and sugar-growing country of the Clarence and the Richmond. The settlement of population originally followed the main roads of the Colony, and is now drawn to the great trunk lines of railway, which have almost superseded them.

Population densest along seaboard.

## *DISTRIBUTION OF SEXES.*

The relative proportion of males to females in the whole Colony has undergone little change during the past twenty-five years, as will be seen from the following figures :—

No. 33.—Per-centage of Males and Females to whole Population :—

| Year. | Males. | Females. |
|---|---|---|
| 1861 | 56·57 | 43·43 |
| 1871 | 54·67 | 45·33 |
| 1881 | 54·71 | 45·29 |
| 1885 | 55·07 | 44·93 |
| 1886 | 55·03 | 44·97 |

The excess of male over female population is chiefly at the ages from 20 to 50 years, and is caused by the large influx of males in the prime of life, both from the neighbouring colonies and the British Islands. New South Wales is especially strong in adult male population, and the number of men between 20 and 50 years at the last census exceeded even that of Victoria, though the latter colony had then a gross population of 111,000 in excess of this Colony. The figures for all the colonies show that there was, at the last census, a population of 619,970 males between the ages named, of whom 175,473 were living in New South Wales.

Excess of male population.

No. 34.—Male Population of the various Australian Colonies between the Ages of 20 and 50 years:—

| Colony. | Male population 20 to 50 years. |
|---|---|
| New South Wales | 175,473 |
| Victoria | 168,444 |
| New Zealand | 120,585 |
| South Australia | 65,545 |
| Queensland | 62,241 |
| Tasmania | 20,941 |
| Western Australia | 6,741 |
| Total | 619,970 |

**Males at self-supporting ages.**

It is customary, in England and elsewhere, to consider the self-supporting ages as from 20 to 60 years. Comparing the population of the different colonies at these ages, the result at the last census was still distinctly favourable to this Colony, though the aggregate was less than Victoria.

No. 35.—Male Population at Supporting Ages, 20 to 60 years, in the various Australian Colonies:—

| Colony. | Male population 20 to 60 years. |
|---|---|
| New South Wales | 200,208 |
| Victoria | 210,850 |
| New Zealand | 134,993 |
| South Australia | 73,778 |
| Queensland | 68,590 |
| Tasmania | 25,798 |
| Western Australia | 8,553 |

Greater number of males in country districts.

The greater portion of the excess of male population is in the country districts. In the city the disparity is not so great; while in the suburbs there is actually an excess of females over males. Taking the eleven years ended 1886, the per-centage of males to females in the whole Colony, and in the city, suburbs, and country will be found below.

No. 36.—Proportion of Males and Females to every 100 persons in the Colony, City, Suburbs, and Country, 1876-86 :—

| Year ended 31 Dec. | Colony. | | City. | | Suburbs. | | Country Districts. | |
|---|---|---|---|---|---|---|---|---|
| | Proportion to 100 persons living. | | Proportion to 100 persons living. | | Proportion to 100 persons living. | | Proportion to 100 persons living. | |
| | Males. | Females. | Males. | Females. | Males. | Females. | Males. | Females. |
| 1876 | 54·30 | 45·70 | 50·93 | 49·07 | 49·17 | 50·83 | 55·93 | 44·07 |
| 1877 | 54·42 | 45·58 | 51·46 | 48·54 | 49·30 | 50·70 | 56·02 | 43·98 |
| 1878 | 54·42 | 45·58 | 51·80 | 48·20 | 48·99 | 51·01 | 56·05 | 43·95 |
| 1879 | 54·54 | 45·46 | 52·36 | 47·64 | 48·92 | 51·08 | 56·19 | 43·81 |
| 1880 | 54·63 | 45·37 | 52·77 | 47·23 | 49·09 | 50·91 | 56·24 | 43·76 |
| 1881 | 54·83 | 45·17 | 53·29 | 46·71 | 49·52 | 50·48 | 56·39 | 43·61 |
| 1882 | 54·67 | 45·33 | 53·43 | 46·57 | 48·96 | 51·04 | 56·32 | 43·68 |
| 1883 | 54·80 | 45·20 | 54·04 | 45·96 | 48·73 | 51·27 | 56·52 | 43·48 |
| 1884 | 54·82 | 45·18 | 54·47 | 45·53 | 48·40 | 51·60 | 56·65 | 43·35 |
| 1885 | 55·07 | 44·93 | 55·14 | 44·86 | 48·60 | 51·40 | 56·92 | 43·08 |
| 1886 | 55·03 | 44·97 | 55·16 | 44·84 | 49·19 | 50·81 | 56·74 | 43·26 |

A glance at the statement of ages of persons returned at the census of 1881, given below, will show at what ages the chief strength of the Colony lies. There is a gradual diminution in the number of persons at the different periods of life from infancy to old age—the only exception to the rule being the large number of males between the ages of 20 and 25 years. New South Wales is almost the only colony which presents this satisfactory view of the ages of its people, approaching so nearly what should theoretically be found in a perfect community.

Ages of the people.

No. 37.—Ages of People in New South Wales at Census of 1881 :—

| Ages. | Males. | Females. | Ages. | Males. | Females. |
|---|---|---|---|---|---|
| Under 5 ......... | 56,169 | 54,954 | 45 to 50 ......... | 19,426 | 11,896 |
| 5 to 10 ......... | 49,877 | 49,141 | 50 „ 55 ......... | 15,649 | 8,835 |
| 10 „ 15 ......... | 45,071 | 43,408 | 55 „ 60 ......... | 9,086 | 5,923 |
| 15 „ 20 ......... | 38,169 | 37,565 | 60 „ 65 ......... | 8,350 | 5,528 |
| 20 „ 25 ......... | 40,056 | 34,481 | 65 „ 70 ......... | 5,134 | 3,148 |
| 25 „ 30 ......... | 35,150 | 25,288 | 70 „ 75 ......... | 3,461 | 2,057 |
| 30 „ 35 ......... | 29,361 | 21,278 | 75 „ 80 ......... | 1,645 | 992 |
| 35 „ 40 ......... | 27,338 | 19,067 | 80 and upwards.. | 1,277 | 637 |
| 40 „ 45 ......... | 24,242 | 15,293 | | | |

## *MARRIAGES.*

The number of marriages registered in the Colony has increased year by year without interruption since 1874, as will be seen below.

No. 38.—Marriages registered in the Colony, 1871–86 :—

| Year. | Marriages registered. | Per 1000 of mean population. | Year. | Marriages registered. | Per 1,000 of mean Population. |
|---|---|---|---|---|---|
| 1871 | 3,953 | 7·77 | 1880 | 5,572 | 7·67 |
| 1872 | 3,925 | 7·45 | 1881 | 6,284 | 8·26 |
| 1873 | 4,384 | 8·05 | 1882 | 6,948 | 8·74 |
| 1874 | 4,343 | 7·69 | 1883 | 7,405 | 8·87 |
| 1875 | 4,505 | 7·87 | 1884 | 7,482 | 8·49 |
| 1876 | 4,630 | 7·66 | 1885 | 7,618 | 8·18 |
| 1877 | 4,994 | 7·94 | 1886 | 7,812 | 7·99 |
| 1878 | 5,317 | 8·08 | Mean for 15 years ... | | 8·03 |
| 1879 | 5,391 | 7·80 | | | |

**Marriages in European countries.**

Compared with some European countries the proportion of marriages to the whole population in the Colony appears somewhat less than might be anticipated, but it will be found that the circumstances of the countries where marriages are more largely entered into are entirely dissimilar, and the national habits different from our own. The highest European marriage-rate is found in the dominions of the three great empires, Germany, Austria-Hungary, and Russia. Their mean marriage-rates since 1870 have been declining year by year; and, as far as three of them are concerned, have fallen below the mean rate of New South Wales.

**Marriages in United Kingdom.**

The marriage-rate of the United Kingdom is always much the same as that of the Australasian Colonies, in spite of the comparatively few marriages solemnized in Ireland.

No. 39.—Marriage-rate per Thousand of Mean Population in certain European countries :—

| Year. | Germany. | Austria. | Hungary. | Russia. |
|---|---|---|---|---|
| 1870 | 7·4 | 9·7 | 9·8 | ........ |
| 1871 | 8·0 | 9·5 | 10·4 | ........ |
| 1872 | 10·3 | 9·2 | 10·8 | ........ |
| 1873 | 10·0 | 9·3 | 11·3 | ........ |
| 1874 | 9·6 | 9·0 | 10·7 | ........ |
| 1875 | 9·1 | 8·5 | 11·0 | ........ |
| 1876 | 9·5 | 8·2 | 9·9 | ........ |
| 1877 | 8·0 | 7·4 | 9·1 | ........ |
| 1878 | 7·7 | 7·5 | 9·3 | ........ |
| 1879 | 7·5 | 7·6 | 10·2 | ........ |
| 1880 | 7·5 | 7·5 | 9·1 | ........ |
| 1881 | 7·5 | 8·0 | 9·9 | ........ |
| 1882 | 7·7 | 8·2 | 10·2 | ........ |
| 1883 | 7·7 | 7·8 | 10·2 | ........ |
| 1884 | ........ | ........ | ........ | 8·3 |
| | 7·7 | 8·4 | 10·2 | 8·3 |

Circumstances of Australia induce marriages.

But no one of the European countries referred to above is to any great extent similar to the Australasian Colonies in its social customs, or in the prosperity of the great bulk of its people. The nearness of the marriage-rate of the United Kingdom to that of Australasia is accidental, as the circumstances of the two places are very dissimilar. In the former case there is a large excess of female population, due to the emigration of males, while in these Colonies the preponderance is greatly on the side of the males. Besides this, the social condition of the working-classes, in even the least forward of the Australasian Colonies, is much more advanced than in the mother countries. The probabilities are therefore greatly in favour of a higher marriage-rate here than in the United Kingdom.

Lowest marriage-rate in Victoria.

The lowest marriage-rate of any of the Colonies is found in Victoria, the highest over a series of years in South Australia. The rates since 1876, which will be found in table No. 40, show that the average of the whole colonies has been approximately 7·62.

Marriage-rate of all Colonies.

The Colonies whose rates are above the average, are—

| | |
|---|---|
| South Australia | 8·44 |
| New South Wales | 8·15 |
| Queensland | 7·97 |
| Tasmania | 7·71 |

Those below the average, are—

| | |
|---|---|
| New Zealand | 7·12 |
| Western Australia | 7·13 |
| Victoria | 6·82 |

No. 40.—Mean Marriage-rates of the Australasian Colonies, 1876–86:—

| Year. | New South Wales. | Victoria. | South Australia. | Queensland. | Western Australia. | Tasmania. | New Zealand. |
|---|---|---|---|---|---|---|---|
| 1876 | 7·66 | 6·21 | 8·49 | 7·57 | 7·07 | 7·13 | 8·25 |
| 1877 | 7·94 | 6·31 | 8·66 | 7·57 | 6·38 | 7·79 | 7·63 |
| 1878 | 8·08 | 6·20 | 9·47 | 6·98 | 6·50 | 7·96 | 8·03 |
| 1879 | 7·80 | 5·98 | 9·81 | 7·49 | 7·57 | 7·23 | 7·50 |
| 1880 | 7·67 | 6·22 | 8·69 | 6·97 | 7·42 | 7·38 | 6·71 |
| 1881 | 8·26 | 6·79 | 8·33 | 7·71 | 6·60 | 7·30 | 6·65 |
| 1882 | 8·74 | 7·08 | 8·73 | 8·56 | 7·07 | 8·03 | 7·07 |
| 1883 | 8·87 | 7·38 | 8·49 | 8·73 | 6·95 | 9·01 | 6·82 |
| 1884 | 8·49 | 7·63 | 8·28 | 8·91 | 7·11 | 7·81 | 6·88 |
| 1885 | 8·18 | 7·58 | 7·65 | 8·92 | 7·80 | 7·97 | 6·74 |
| 1886 | 7·99 | 7·84 | 6·31 | 8·32 | 7·94 | 7·27 | 6·02 |
| Mean... | 8·15 | 6·82 | 8·44 | 7·97 | 7·13 | 7·71 | 7·12 |

As far as these Colonies are concerned, the factors influencing the marriage-rate are—first, and chiefly, the general prosperity of the community; secondly, the number of marriageable males, and the occupations of the people.

Judged by certain standard tests, which will be hereafter described, the prosperity of the people of New South Wales was perhaps greater than that of any of the other colonies during the period over which the comparison extends; hence the high marriage-rate compared with some of the other colonies.

Large number of single men in New South Wales.

The number of single men (bachelors and widowers) of marriageable age was, numerically, larger in New South Wales than in any of the other colonies, but, proportionately to the whole population, larger only than in Victoria, Tasmania, and South Australia during the year 1881. Under similar conditions it would, therefore, be natural to suppose that, were it not for the greater material prosperity of New South Wales, the marriage-rates of the remaining colonies would have been higher than in this Colony. Such, however, was not the case, for, as mentioned above, the rate for New South Wales is exceeded only by South Australia, over a series of years. This is due chiefly to the smaller number of persons in that colony whose abodes are constantly changing by reason of the exigencies of their occupation, and to a wave of prosperity which has now subsided.

Probability of marriage of women.

Taking 1881, the only year available for comparison of the probabilities of marriage in each colony, it will be seen that the chance of marriage for a single woman was greatest in Queensland where it was nearly twice that of Victoria, and about one-third greater than in New South Wales.

No. 41.—Marriage-rate per cent. of Single Women of marriageable age in each Colony:—

| Colony. | Marriage per cent. | Colony. | Marriage per cent. |
|---|---|---|---|
| Queensland ............... | 9·75 | Western Australia...... | 6·55 |
| New South Wales ...... | 7·48 | Tasmania.................. | 5·45 |
| New Zealand............... | 7·39 | Victoria .................. | 4·94 |
| South Australia ......... | 7·10 | | |

Number of persons signing with marks.

The number of persons signing the marriage register with marks has steadily declined for many years past; the proportion of signatures made with marks was, in 1871, 16·96 per cent. of the whole, while in 1886, the per-centage had fallen to 3·98, thus showing a satisfactory decrease of illiteracy. The greatest number of persons signing with marks were in the country districts of the Colony, where, in 1871, 18·92 per cent. of the total signatures were so made, as against 13·12 in the city, and 10·98 in the suburbs of Sydney. The proportion of persons unable to write is still much higher in the country than in the metropolis, though it is satisfactory to note the reduction of the per-centage from 18·92 in the year mentioned to 5·00 in 1886.

No. 42.—Per-centage of Marks to Total Signatures of Persons signing Marriage Register.—Period 1871–86 :—

| Year. | City. | Suburbs. | Country. | Colony. |
|---|---|---|---|---|
| 1871 | 13·12 | 10·98 | 18·92 | 16·96 |
| 1872 | 11·49 | 8·23 | 15·09 | 13·62 |
| 1873 | 10·73 | 8·38 | 16·53 | 14·26 |
| 1874 | 10·12 | 7·93 | 15·85 | 11·96 |
| 1875 | 10·67 | 3·28 | 14·21 | 12·26 |
| 1876 | 7·63 | 3·56 | 16·71 | 10·47 |
| 1877 | 8·30 | 5·85 | 11·10 | 9·76 |
| 1878 | 7·16 | 4·59 | 9·21 | 8·10 |
| 1879 | 6·42 | 4·34 | 8·85 | 7·58 |
| 1880 | 6·58 | 3·97 | 7·31 | 6·66 |
| 1881 | 5·41 | 4·24 | 8·34 | 6·94 |
| 1882 | 6·17 | 3·47 | 6·00 | 5·63 |
| 1883 | 5·00 | 4·00 | 7·28 | 6·10 |
| 1884 | 3·60 | 3·12 | 6·77 | 5·23 |
| 1885 | 3·76 | 2·03 | 5·99 | 4·74 |
| 1886 | 3·63 | 1·90 | 5·00 | 3·98 |
| Mean | 7·49 | 4·99 | 11·01 | 9·02 |

Illiteracy of women.

The amount of illiteracy, as displayed by inability to write, is greater amongst females than males. In 1871, the first year shown on the foregoing table, the number of women unable to sign their names, who were married amounted to nearly one-fifth of the whole, but the proportion fell to 4·2 per cent. in 1886.

The following table gives the proportion of each sex signing with marks for every year since 1871.

No. 43.—Per-centage of Males and Females signing Marriage Register with Marks, 1871-86 :—

| Year. | Males signing with marks, per cent. | Females signing with marks per cent. | Year. | Males signing with marks, per cent. | Females signing with marks, per cent. |
|---|---|---|---|---|---|
| 1871 | 14 | 19 | 1879 | 6 | 8 |
| 1872 | 11 | 15 | 1880 | 6 | 7 |
| 1873 | 12 | 15 | 1881 | 5 | 8 |
| 1874 | 10 | 13 | 1882 | 5 | 6 |
| 1875 | 10 | 13 | 1883 | 5 | 6 |
| 1876 | 9 | 11 | 1884 | 4 | 5 |
| 1877 | 8 | 11 | 1885 | 4 | 5·2 |
| 1878 | 7 | 8 | 1886 | 3·8 | 4·2 |

Marriages are chiefly by clergy.

The great bulk of the marriages are solemnized by the clergy: nevertheless, the number of persons married by registrars is fairly large, averaging 5·86 per cent. of the whole, during the past 17 years, and showing a tendency to increase.

No. 44.—Per-centage of Marriages solemnized by the Clergy and at Registrars' offices:—

| Year. | Marriages by Clergymen. | Marriages at Registrars' office | Year. | Marriages by Clergymen. | Marriage at Registrars' office |
|---|---|---|---|---|---|
| 1870 | 94·42 | 5·58 | 1880 | 94·29 | 5·71 |
| 1871 | 94·46 | 5·54 | 1881 | 93·76 | 6·24 |
| 1872 | 95·13 | 4·87 | 1882 | 93·75 | 6·25 |
| 1873 | 95·92 | 4·08 | 1883 | 93·44 | 6·56 |
| 1874 | 95·21 | 4·79 | 1884 | 92·82 | 7·18 |
| 1875 | 94·56 | 5·44 | 1885 | 93·30 | 6·70 |
| 1876 | 94·06 | 5·94 | 1886 | 93·18 | 6·82 |
| 1877 | 93·93 | 6·07 | | | |
| 1878 | 94·19 | 5·81 | Average for 17 years | 94·14 | 5·86 |
| 1879 | 94·03 | 5·97 | | | |

Church of England and Roman Catholic marriages.

As may naturally be expected, the largest number of marriages were celebrated by the Church of England, the Roman Catholic Church coming next. Nevertheless, the per-centage of marriages celebrated by each of these Churches falls short of what might have been anticipated from their strength, as shown by the census. This is noticeably the case with the Roman Catholic Church. The adherents of this denomination at the census of 1881 were 27·63 per cent. of the population, whereas the marriages solemnized according to her rites during the year 1886 were only 16·94 per cent. of the whole marriages.

To bring the number of Roman Catholic marriages up to the proper proportion they should increase at least 60 per cent. It is plain, therefore, that the adherents of this Church are either not being married within their own communion, or that they are not undertaking the responsibilities of marriage to the same extent as other members of the community. The latter supposition is doubtless the correct explanation of the anomaly. The adherents of the

Roman Catholic Church are amongst the poorest in the Colony; and want of means is, perhaps, the chief cause of the comparatively small number of their marriages.

Marriages by Church of England.

The disparity between the number of marriages solemnized by the clergy of the Church of England and what might be expected from the numerical strength of the denomination is not so great. During the year 1886, there were celebrated 2,987 marriages according to the rites of this Church, being 38·24 per cent. of the total marriages, while the estimated per-centage of its adherents was 45·50.

Proportion of marriages by each denomination.

A glance at the following table will show that the number of marriages celebrated by ministers of other denominations, notably the Presbyterian, Methodist, Congregational, and Baptist, far exceeded their apparent due proportions.

No. 45.—Per-centage of Marriages celebrated by Clergy of Various Denominations during 1886 :—

| Denomination. | Marriages. | Per-centage of total Marriages. | Per-centage of adherents to total population, census 1882. |
|---|---|---|---|
| Church of England | 2,987 | 38·24 | 45·50 |
| Roman Catholic | 1,323 | 16·94 | 27·63 |
| Presbyterian | 1,147 | 14·68 | 9·16 |
| Methodist | 1,039 | 13·30 | 8·58 |
| Congregational | 554 | 7·09 | 1·91 |
| Baptist | 120 | 1·54 | 0·98 |
| Other Denominations, or unspecified | 90 | 1·16 | 5·30 |
| Hebrew | 18 | 0·23 | 0·44 |
| Registrars' Offices | 533 | 6·82 | ...... |
|  | 7,811 |  |  |

No. 46.—Marriages registered in the Colony, 1876-86:—

| Denomination. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Church of England ... | 1,759 | 1,869 | 2,098 | 2,182 | 2,252 | 2,487 | 2,768 | 2,949 | 2,893 | 2,990 | 2,987 |
| Roman Catholic ...... | 921 | 990 | 1,009 | 982 | 1,021 | 1,171 | 1,315 | 1,414 | 1,448 | 1,258 | 1,323 |
| Presbyterian ........... | 761 | 854 | 821 | 722 | 768 | 872 | 955 | 950 | 1,009 | 1,155 | 1,147 |
| Wesleyan Methodist... | 487 | 509 | 556 | 605 | 618 | 651 | 704 | 712 | 759 | 739 | 832 |
| Primitive Methodist... | 101 | 110 | 94 | 111 | 101 | 146 | 134 | 157 | 165 | 193 | 207 |
| Congregationalist ...... | 232 | 243 | 291 | 331 | 364 | 433 | 516 | 565 | 484 | 532 | 554 |
| Baptist..... ............. | 39 | 70 | 89 | 90 | 93 | 85 | 79 | 101 | 117 | 137 | 120 |
| Hebrew.................. | 14 | 20 | 20 | 22 | 17 | 27 | 22 | 24 | 27 | 27 | 18 |
| German Evangelical... | 19 | 20 | 11 | 13 | 9 | 13 | 14 | 10 | 18 | 26 | 17 |
| Christians .............. | 4 | 3 | 11 | 7 | 9 | 3 | 5 | 1 | 5 | 2 | 31 |
| Independent ............ | ...... | ...... | ...... | ...... | ...... | ...... | ...... | 12 | 5 | 31 | 21 |
| Other Denominations.. | 18 | 8 | 8 | 4 | 2 | 4 | 2 | 24 | 15 | 18 | 21 |
| Registrars' Offices...... | 275 | 303 | 309 | 322 | 318 | 392 | 434 | 486 | 537 | 510 | 533 |
| Total ............ | 4,630 | 4,904 | 5,317 | 5,391 | 5,572 | 6,284 | 6,948 | 7,405 | 7,482 | 7,618 | 7,811 |

**Marriages dissolved.**

The Matrimonial Causes Act was assented to on the 28th of May, 1876. Since that date to the end of 1886, 220 marriages have been dissolved, the largest number in any year being thirty-two, during 1886.

No. 47.—Table showing Number of Decrees for Dissolution of Marriages, 1875–86 :—

| Year. | Decrees for dissolution of marriage. | Year. | Decrees for dissolution of marriage. |
|---|---|---|---|
| 1875 | 9 | 1882 | 19 |
| 1876 | 19 | 1883 | 14 |
| 1877 | 19 | 1884 | 27 |
| 1878 | 11 | 1885 | 23 |
| 1879 | 10 | 1886 | 32 |
| 1880 | 22 | | |
| 1881 | 15 | Total......... | 220 |

**Marriages of divorced persons.**

The number of persons divorced in the Colony who married again cannot be ascertained, but, during the twelve years which ended with 1886, forty-seven men and forty-two women, who had been divorced either in the Colony or elsewhere, were re-married. The largest number in any one year was sixteen, which happened in the years 1883 and 1886; in the former year the numbers were eleven males and five females, whilst in the latter there were eight divorced persons of each sex who remarried.

No. 48.—Number of Marriages of Divorced Persons, 1875–86 :—

| Year. | No. of divorced persons married. | | Year. | No. of divorced persons married. | |
|---|---|---|---|---|---|
| | Males. | Females. | | Males. | Females. |
| 1875 | 1 | ............ | 1882 | 2 | 2 |
| 1876 | 2 | 1 | 1883 | 11 | 5 |
| 1877 | 1 | 3 | 1884 | 6 | 6 |
| 1878 | 2 | 3 | 1885 | 9 | 6 |
| 1879 | 4 | 2 | 1886 | 8 | 8 |
| 1880 | ............ | 1 | | | |
| 1881 | 1 | 5 | Total... | 47 | 42 |

The number of children born to a marriage varies very little in these Colonies, the average being 4·69 as shown below.

**Number of children born to a marriage.**

No. 49.—Average number of Children born to a Marriage in each Colony.—Period, 1876-85:—

| Colony. | Average number of children per marriage. |
|---|---|
| New South Wales | 4·78 |
| Victoria | 4·55 |
| South Australia | 4·41 |
| Queensland | 4·72 |
| Western Australia | 4·77 |
| Tasmania | 4·23 |
| New Zealand | 5·39 |
| Average of Australasian Colonies | 4·69 |

The proportion of children shown above is somewhat higher than in the United Kingdom, though hardly so high as might have been expected, considering the circumstances of these Colonies. The average number of children to a marriage in the United Kingdom is:—

**Children per marriage in United Kingdom.**

| | |
|---|---|
| England and Wales | 4·16 |
| Ireland | 5·46 |
| Scotland | 4·43 |

The figures for Ireland are exceptionally high, which is somewhat surprising, as the average age of persons marrying there is much higher than in Australia. The lowest number of children born to a marriage in any of the important European countries is in France, where the average is only 2·98.

## *BIRTHS.*

The mean annual birth-rate of this Colony is higher than that of any of the other Australasian Colonies, New Zealand alone excepted, and even in the case of that colony, the New South Wales rate has been higher for the last few years, as will be seen from the following table.

**Mean annual birth-rate.**

No. 50.—Mean Birth-rate of the Australasian Colonies :—

| Year. | N.S. Wales. | Victoria. | S. Australia | Queensland. | W. Australia | Tasmania | N. Zealand. |
|---|---|---|---|---|---|---|---|
| 1876 | 38·55 | 33·61 | 37·71 | 37·48 | 33·98 | 30·11 | 41·73 |
| 1877 | 37·92 | 32·17 | 37·36 | 36·75 | 33·07 | 30·21 | 41·28 |
| 1878 | 38·50 | 32·36 | 38·23 | 35·75 | 31·11 | 32·27 | 42·14 |
| 1879 | 38·99 | 32·18 | 38·96 | 36·74 | 34·38 | 32·05 | 40·32 |
| 1880 | 38·80 | 30·75 | 38·94 | 36·92 | 32·35 | 32·91 | 40·78 |
| 1881 | 38·13 | 31·24 | 38·66 | 37·19 | 33·67 | 33·40 | 37·95 |
| 1882 | 37·37 | 31·04 | 37·40 | 35·85 | 35·81 | 33·50 | 37·72 |
| 1883 | 37·49 | 30·02 | 37·37 | 36·92 | 33·87 | 34·25 | 36·28 |
| 1884 | 38·53 | 30·49 | 38·38 | 35·75 | 33·84 | 35·66 | 35·91 |
| 1885 | 37·64 | 30·74 | 37·70 | 36·65 | 35·21 | 35·08 | 34·85 |
| 1886 | 37·03 | 31·24 | 35·69 | 37·58 | 39·31 | 34·14 | 33·14 |
| Mean for 10 years | 38·09 | 31·36 | 37·85 | 36·68 | 34·23 | 33·05 | 38·40 |

Increase of births.

The births in New South Wales have increased year by year since 1865, and now exceed those of any other colony. The superiority in regard to the number of births rested with Victoria until the year 1879, when the births in this colony exceeded those of its southern neighbour by 94. Since that year the excess has gradually grown larger, till, during the year 1886, the births registered in New South Wales were more numerous than those registered in Victoria by 5,460. The number of births in each of the Colonies for the period 1876–86 is shown on table No. 51.

No. 51.—Births registered in the different Colonies of Australasia :—

| Year. | New South Wales. | Victoria. | South Australia. | Queensland. | Western Australia. | Tasmania. | New Zealand. |
|---|---|---|---|---|---|---|---|
| 1876 | 23,298 | 26,769 | 8,224 | 6,903 | 918 | 3,149 | 16,168 |
| 1877 | 23,851 | 26,010 | 8,640 | 7,169 | 912 | 3,211 | 16,856 |
| 1878 | 25,328 | 26,581 | 9,282 | 7,397 | 871 | 3,502 | 17,770 |
| 1879 | 26,933 | 26,839 | 9,902 | 7,870 | 977 | 3,564 | 18,070 |
| 1880 | 28,162 | 26,148 | 10,262 | 8,196 | 933 | 3,739 | 19,341 |
| 1881 | 28,993 | 26,145 | 10,708 | 8,220 | 1,005 | 3,918 | 18,732 |
| 1882 | 29,702 | 26,747 | 10,844 | 8,518 | 1,089 | 4,043 | 19,009 |
| 1883 | 31,281 | 27,541 | 11,173 | 9,890 | 1,058 | 4,259 | 19,202 |
| 1884 | 33,946 | 28,850 | 11,847 | 10,679 | 1,094 | 4,578 | 19,846 |
| 1885 | 35,043 | 29,975 | 12,046 | 11,672 | 1,200 | 4,637 | 19,693 |
| 1886 | 36,284 | 30,824 | 11,177 | 12,582 | 1.466 | 4,627 | 19,299 |

**Sex of children born.**

In no year, as far as observation extends, has the number of females born exceeded the males. The numbers since 1871 are given below.

No. 52.—Sex of Children born, 1871–86 :—

| Year. | Males. | Females. | Total. | Year. | Males. | Females. | Total. |
|---|---|---|---|---|---|---|---|
| 1871 | 10,326 | 9,817 | 20,143 | 1879 | 13,840 | 13,093 | 26,933 |
| 1872 | 10,276 | 9,974 | 20,250 | 1880 | 14,424 | 13,738 | 28,162 |
| 1873 | 10,952 | 10,492 | 21,444 | 1881 | 14,891 | 14,102 | 28,993 |
| 1874 | 11,323 | 10,855 | 22,178 | 1882 | 15,087 | 14,615 | 29,702 |
| 1875 | 11,380 | 11,148 | 22,528 | 1883 | 16,014 | 15,267 | 31,281 |
| 1876 | 11,791 | 11,507 | 23,298 | 1884 | 17,417 | 16,529 | 33,946 |
| 1877 | 12,292 | 11,559 | 23,851 | 1885 | 17,939 | 17,104 | 35,043 |
| 1878 | 13,082 | 12,246 | 25,328 | 1886 | 18,700 | 17,584 | 36,284 |

**Birth of males exceeds females.**

The excess of males born over females during the past sixteen years has varied from 2·05 per cent. in 1875 to 6·43 in 1878, the average being 4·75 per cent.

No. 53.—Proportion of Males born to every 100 Females :—

| Year. | Males born to every 100 females. | Year. | Males born to every 100 females. |
|---|---|---|---|
| 1871 | 105·18 | 1879 | 105·71 |
| 1872 | 103·03 | 1880 | 105·00 |
| 1873 | 104·38 | 1881 | 105·59 |
| 1874 | 104·31 | 1882 | 103·23 |
| 1875 | 102·08 | 1883 | 104·89 |
| 1876 | 102·47 | 1884 | 105·37 |
| 1877 | 106·34 | 1885 | 104·88 |
| 1878 | 106·83 | 1886 | 106·35 |

Births most numerous in spring.

Births are more numerous in spring than in any other portion of the year, and are least in the March quarter. This is found to be the case in the other colonies of Australasia as well as in New South Wales. The following table gives the number of births in each quarter since 1877.

No. 54.—Births during Each Quarter of the Year, 1877–86 :—

| Year. | 31st March. | 30th June. | 30th Sept. | 31st Dec. |
|---|---|---|---|---|
| 1877 | 5,620 | 5,837 | 6,421 | 5,973 |
| 1878 | 5,962 | 6,165 | 6,976 | 6,225 |
| 1879 | 6,231 | 6,591 | 7,264 | 6,847 |
| 1880 | 6,590 | 7,116 | 7,230 | 7,228 |
| 1881 | 6,976 | 6,983 | 7,514 | 7,520 |
| 1882 | 7,195 | 7,273 | 7,827 | 7,407 |
| 1883 | 7,378 | 7,755 | 8,000 | 8,148 |
| 1884 | 8,141 | 8,443 | 9,160 | 8,202 |
| 1885 | 8,178 | 8,508 | 9,656 | 8,701 |
| 1886 | 8,451 | 8,976 | 9,592 | 9,265 |

Birth-rate per thousand.

Separating the Colony into the divisions of city of Sydney, suburbs, and country districts, it will be seen from a subsequent table that the birth-rate per thousand is much higher in the suburbs than in the other districts. The highest rate reached for the whole Colony was 39·63, in 1871, which was also the year of the greatest birth-rate in the city. The estimated maximum rate for the suburbs was reached in 1884, when the births were 48·28 per thousand of the population. In the country districts, the greatest number of births in proportion to the population occurred in 1874, when the rate was 39·72 per thousand.

Yearly birth-rate.

No. 55.—Yearly Birth-rate of the whole Colony, City and Suburbs of Sydney and Country Districts, 1871–86 :—

| Year. | Births per thousand of the population. | | | |
|---|---|---|---|---|
| | Colony. | City of Sydney. | Suburbs. | Country. |
| 1871 | 39·63 | 38·91 | 42·62 | 39·29 |
| 1872 | 38·46 | 36·63 | 37·69 | 38·96 |
| 1873 | 37·99 | 38·09 | 40·55 | 39·44 |
| 1874 | 39·29 | 37·81 | 38·57 | 39·72 |
| 1875 | 38·53 | 37·44 | 37·92 | 38·86 |
| 1876 | 38·55 | 38·37 | 37·73 | 38·74 |
| 1877 | 37·92 | 38·13 | 37·18 | 38·02 |
| 1878 | 38·50 | 37·61 | 38·66 | 38·64 |
| 1879 | 38·99 | 38·47 | 39·84 | 38·91 |
| 1880 | 38·80 | 37·16 | 40·61 | 38·72 |
| 1881 | 38·13 | 35·84 | 41·91 | 37·70 |
| 1882 | 37·37 | 34·64 | 44·04 | 36·29 |
| 1883 | 37·49 | 33·24 | 44·89 | 36·45 |
| 1884 | 38·53 | 34·80 | 48·28 | 36·67 |
| 1885 | 37·64 | 31·17 | 47·40 | 36·18 |
| 1886 | 37·03 | 29·41 | 48·22 | 35·25 |
| Mean ... | 38·30 | 36·11 | 41·63 | 37·99 |

Excess of births over deaths.

The excess of births over deaths has not shown a steady increase year by year, but has fluctuated somewhat, as will be seen from table No. 56, given below. In the whole Colony, during the sixteen years elapsing from 1871 to 1886, the least excess was 11,757 in 1875, the highest being 21,697, in the year 1886. In the city of Sydney, the least excess was in 1875, viz., 489 ; the highest in 1886, when the number reached 1,610. The suburbs show more uniform figures than the city. The least excess of births over deaths also occurred in 1875, when it was 1,261; the greatest excess was 5,240, being, as in the case of the other portions of the Colony, in the year just closed, 1886. In the country districts of the Colony, the number ranged from 9,913, in 1876, to 14,847, in 1886.

No. 56.—Excess of Births over Deaths in the Colony, City, Suburbs, and Country Districts, 1871–86:—

| Year. | Colony. | City. | Suburbs. | Country. |
|---|---|---|---|---|
| 1871 | 13,736 | 1,397 | 1,718 | 10,621 |
| 1872 | 12,782 | 1,069 | 1,521 | 10,192 |
| 1873 | 13,833 | 1,265 | 1,766 | 10,802 |
| 1874 | 13,526 | 1,044 | 1,586 | 10,894 |
| 1875 | 11,757 | 489 | 1,261 | 10,007 |
| 1876 | 12,105 | 819 | 1,373 | 9,913 |
| 1877 | 13,982 | 1,399 | 1,925 | 10,658 |
| 1878 | 14,565 | 1,163 | 2,023 | 11,379 |
| 1879 | 16,733 | 1,448 | 2,499 | 12,786 |
| 1880 | 16,931 | 995 | 2,439 | 13.497 |
| 1881 | 17,457 | 1,495 | 3,065 | 12,897 |
| 1882 | 16,886 | 1,229 | 3,379 | 12,278 |
| 1883 | 19.032 | 1,523 | 3,819 | 13,690 |
| 1884 | 19,726 | 1,594 | 4,352 | 13,780 |
| 1885 | 19,761 | 1,250 | 4,523 | 13,988 |
| 1886 | 21,697 | 1,610 | 5,240 | 14,847 |

Net annual increase.

The net annual increase to the population by reason of the excess of births over deaths amounts to 2·25 per cent. for a period extending over fifteen years.

For all the Colonies the rates are :—

No. 57.—Increase to Population from Excess of Births over Deaths in Australasian Colonies.

| Colony. | Increase per cent. |
|---|---|
| New Zealand | 2·85 |
| South Australia | 2·32 |
| New South Wales | 2·25 |
| Queensland | 1·89 |
| Western Australia | 1·80 |
| Tasmania | 1·71 |
| Victoria | 1·64 |

Excess in favour of females.

Notwithstanding that the number of males born is considerably larger than that of females, the actual increase of population from the excess of births over deaths is, owing to the greater mortality amongst males, greatly in favour of the latter. During the sixteen years which closed with 1886, the number of females added to the community exceeded the males by 18,205, or 20·92 per cent.

## *ILLEGITIMACY.*

Illegitimacy increasing.

The number of illegitimate births in the city, suburbs, and country districts, will be found in a subsequent table. Taking the whole period over which the tables extend, it will be seen that the per-centage has increased throughout the Colony, and in the city and suburbs, although there has been only a slight improvement in the country districts. As regards the city proper, the increase in illegitimacy has been startling.

Number of Illegitimate Births—1871–86 :—

| Year. | City. | Suburbs. | Country. | Total. |
|---|---|---|---|---|
| 1871 | 206 | 61 | 515 | 782 |
| 1872 | 182 | 66 | 568 | 816 |
| 1873 | 199 | 86 | 604 | 889 |
| 1874 | 241 | 88 | 606 | 935 |
| 1875 | 260 | 85 | 602 | 947 |
| 1876 | 306 | 88 | 556 | 950 |
| 1877 | 305 | 77 | 607 | 989 |
| 1878 | 317 | 108 | 596 | 1,021 |
| 1879 | 389 | 117 | 709 | 1,215 |
| 1880 | 411 | 150 | 665 | 1,226 |
| 1881 | 425 | 167 | 671 | 1,263 |
| 1882 | 440 | 161 | 660 | 1,261 |
| 1883 | 439 | 237 | 642 | 1,318 |
| 1884 | 527 | 259 | 709 | 1,495 |
| 1885 | 529 | 316 | 767 | 1,612 |
| 1886 | 533 | 372 | 782 | 1,687 |

Illegitimacy in Sydney.

Dividing the fifteen years which ended with 1885 into quinquennial periods, the average number of children born out of wedlock, compared with the total births, and with the legitimate children born during each period, was for the city of Sydney—

| | Per cent. of total births. | Per cent. of legitimate births. |
|---|---|---|
| 1871–75 | 7·13 | 7·67 |
| 1876–80 | 9·75 | 10·83 |
| 1881–85 | 12·25 | 13·96 |
| 1886 | 13·61 | 15·76 |

Illegitimate births.

The bare statement of these figures is a serious reflection upon the morals of the community. That during the past five years one child in every eight should have been born with the brand of illegitimacy is an important revelation with regard to social morality. It is also a matter of State concern, as a very large percentage of these unfortunate children become a burden to the country from their birth, and it is from such that the pauper population of the Colony is largely recruited. Happily, as regards the city, the case, as it appears in the table, is somewhat overstated.

Cause of excess of illegitimacy in the city.

Not a few of the women whose children are born out of wedlock in the city, really belong to the suburbs or country districts, but to what extent does not appear; possibly the improvement noticeable in the country districts is due to the fact that women who have fallen come to Sydney to hide their shame. The records of accouchements at the Benevolent Asylum certainly give colour to this supposition, for out of the large number of unmarried women whose confinements took place in that institution, it is only reasonable to suppose that the suburbs contributed a large quota.

No. 58.—Confinements of Married and Unmarried Women in the Benevolent Asylum, Sydney :—

| Year. | No. of Confinements. | Married. | Unmarried | Year. | No. of Confinements. | Married. | Unmarried |
|---|---|---|---|---|---|---|---|
| 1865 | 129 | 50 | 79 | 1876 | 156 | 38 | 118 |
| 1866 | 129 | 51 | 78 | 1877 | 169 | 41 | 128 |
| 1867 | 121 | 44 | 77 | 1878 | 160 | 38 | 122 |
| 1868 | 102 | 46 | 56 | 1879 | 203 | 45 | 158 |
| 1869 | 112 | 40 | 72 | 1880 | 233 | 51 | 182 |
| 1870 | 95 | 29 | 66 | 1881 | 225 | 50 | 175 |
| 1871 | 117 | 54 | 63 | 1882 | 237 | 45 | 192 |
| 1872 | 102 | 37 | 65 | 1883 | 210 | 33 | 177 |
| 1873 | 107 | 27 | 80 | 1884 | 305 | 84 | 221 |
| 1874 | 126 | 36 | 90 | 1885 | 262 | 55 | 207 |
| 1875 | 113 | 30 | 83 | 1886 | 300 | 71 | 229 |

Illegitimacy in the city and suburbs.

Taking the city and suburbs of Sydney together, the rates of illegitimacy during the five-year periods since 1871, are :—

| | Per cent. of total births. | Per cent. of legitimate births. |
|---|---|---|
| 1871-75 | 5·13 | 5·41 |
| 1876-80 | 6·17 | 6·54 |
| 1881-85 | 6·61 | 7·07 |
| 1886 | 6·89 | 7·39 |

The rates are much more favourable than those of the city taken separately, and perhaps better represent the true state of affairs as regards illegitimacy than the table already given.

Dividing the illegitimate births of the whole Colony into the same periods as given for the city, their proportions, as compared with the total births, and with legitimate births, are—

| | Per cent. of total births. | Per cent. of legitimate births. |
|---|---|---|
| 1871-75 | 4·09 | 4·26 |
| 1876-80 | 4·22 | 4·40 |
| 1881-85 | 4·37 | 4·57 |
| 1886 | 4·60 | 4·82 |

Morals of Colony favourably compare with the United Kingdom.

Taken as a whole, the Colony compares favourably with most other countries, though its rate as computed from 1871 is higher than that of Victoria, Queensland, or New Zealand, for the same period, though not greater than Victoria for nine years past.

No. 59.—Per-centage of Illegitimate Births to Total Births in the Australasian Colonies and the United Kingdom :—

| Country. | Illegitimate births per cent. for series of Years. |
|---|---|
| New South Wales | 4·20 |
| Victoria | 4·06 |
| Queensland | 3·60 |
| New Zealand | 2·15 |
| England | 5·00 |
| Ireland | 2·46 |
| Scotland | 8·37 |

The rates for all these colonies are smaller than those of England and Scotland, but illegitimacy is increasing here, while it is decreasing in the United Kingdom.

Per-centage of illegitimacy to total births.

No. 60.—Illegitimate births—Per-centage to Total Births in the Colony, City, Suburbs, and Country Districts, 1871–85 :—

| Year. | City. | Suburbs. | Country. | Colony. |
|---|---|---|---|---|
| 1871 | 6·91 | 2·34 | 3·53 | 3·88 |
| 1872 | 6·32 | 2·70 | 3·80 | 4·02 |
| 1873 | 6·49 | 3·11 | 3·86 | 4·14 |
| 1874 | 7·72 | 3·15 | 3·72 | 4·21 |
| 1875 | 8·22 | 2·92 | 3·65 | 4·20 |
| 1876 | 9·24 | 2·87 | 3·28 | 4·07 |
| 1877 | 8·97 | 2·37 | 3·52 | 4·14 |
| 1878 | 9·09 | 2·93 | 3·28 | 4·03 |
| 1879 | 10·47 | 2·82 | 3·72 | 4·51 |
| 1880 | 11·00 | 3·25 | 3·36 | 4·35 |
| 1881 | 11·36 | 3·23 | 3·34 | 4·35 |
| 1882 | 11·72 | 2·74 | 3·28 | 4·24 |
| 1883 | 11·68 | 3.62 | 3·05 | 4·21 |
| 1884 | 12·76 | 3.34 | 3·21 | 4·40 |
| 1885 | 13·61 | 3.77 | 3·37 | 4·60 |
| 1886 | 13·90 | 4·00 | 3·38 | 4·65 |

## *DEATHS.*

The number of deaths occurring in the Colony averages 16·69 for males, and 14·10 for females, per thousand persons, or 15·55 for the whole population. Compared with the death-rates of other countries, especially those of the Old World, this rate is undoubtedly favourable. Yet, as will presently appear, it is much higher than might be anticipated from the peculiarly healthy climatic conditions which obtain in New South Wales.

Mean death-rate.

The mean death-rate of the Australasian Colonies varies from 11·33 per thousand, in New Zealand, to 17·83 in Queensland, with an average of 15·21, which is a little higher than the rate of Victoria. Four colonies are over the mean rate :—New South Wales with 15·55 ; Queensland, 17·83; Western Australia, 16·23; and Tasmania, 15·98 per thousand, while three are lower :—Victoria, 14·94; South Australia, 14·60; and New Zealand, 11·33 per thousand.

No. 61.—Mean Death-rate of the Australasian Colonies :—

| Year. | N.S. Wales. | Victoria. | S. Australia. | Queensland. | W. Australia. | Tasmania. | N.Zealand. |
|---|---|---|---|---|---|---|---|
| 1876 | 18·52 | 17·02 | 16·28 | 18·82 | 14·18 | 16·54 | 12·66 |
| 1877 | 15·69 | 15·80 | 13·99 | 17·29 | 15·70 | 19·17 | 11·47 |
| 1878 | 16·36 | 15·46 | 15·44 | 20·41 | 14·07 | 15·66 | 11·01 |
| 1879 | 14·76 | 14·53 | 14·09 | 14·97 | 14·46 | 15·18 | 11·46 |
| 1880 | 15·47 | 13·70 | 14·85 | 13·59 | 13·24 | 16·12 | 12·46 |
| 1881 | 15·17 | 14·16 | 14·49 | 15·02 | 13·80 | 14·77 | 11·13 |
| 1882 | 16·12 | 15·31 | 15·15 | 17·99 | 14·16 | 15·79 | 11·19 |
| 1883 | 14·68 | 14·18 | 14·83 | 18·82 | 17·93 | 17·06 | 11·45 |
| 1884 | 16·14 | 14·27 | 15·52 | 22·97 | 21·87 | 15·50 | 10·39 |
| 1885 | 16·41 | 14·73 | 12·47 | 19·58 | 17·60 | 15·40 | 10·76 |
| 1886 | 14·89 | 15·15 | 13·52 | 16·65 | 21·56 | 14·58 | 10·53 |
| Mean.. | 15·55 | 14·94 | 14·60 | 17·83 | 16·23 | 15·98 | 11·33 |

The death-rate of males averages in this Colony 16·69 per thousand, or more than one-sixth higher than that of females. The deaths of both sexes will be seen below.

Death-rate of males and females compared.

No. 62.—Deaths, and Death-rate of the Colony, 1871-86 :—

| Year. | Males. | Females. | Total. | Death Rate per 1,000 of mean population. | | |
|---|---|---|---|---|---|---|
| | | | | Males. | Females. | Total. |
| 1871 | 3,882 | 2,525 | 6,407 | 13·98 | 10·95 | 12·61 |
| 1872 | 4,442 | 3,026 | 7,468 | 15·45 | 12·66 | 14·18 |
| 1873 | 4,599 | 3,012 | 7,611 | 15·50 | 12·15 | 13·98 |
| 1874 | 5,022 | 3,630 | 8,652 | 16·35 | 14·11 | 15·33 |
| 1875 | 6,245 | 4,526 | 10,771 | 19·64 | 16·97 | 18·42 |
| 1876 | 6,508 | 4,685 | 11,193 | 19·82 | 16·98 | 18·52 |
| 1877 | 5,877 | 3,992 | 9,869 | 17·19 | 13·90 | 15·69 |
| 1878 | 6,284 | 4,479 | 10,763 | 17·55 | 14·94 | 16·36 |
| 1879 | 6,082 | 4,118 | 10,200 | 16·16 | 13·10 | 14·76 |
| 1880 | 6,638 | 4,593 | 11,231 | 16·76 | 13·94 | 15·47 |
| 1881 | 6,753 | 4,783 | 11,536 | 16·23 | 13·90 | 15·17 |
| 1882 | 7,596 | 5,220 | 12,816 | 17·45 | 14·51 | 16·12 |
| 1883 | 7,116 | 5,133 | 12,249 | 15·58 | 13·59 | 14·68 |
| 1884 | 8,325 | 5,895 | 14,220 | 17·24 | 14·81 | 16·14 |
| 1885 | 8,900 | 6,382 | 15,282 | 17·40 | 15·22 | 16·41 |
| 1886 | 8,501 | 6,086 | 14,587 | 15·76 | 13·81 | 14·89 |
| Mean ... ... | | | | 16·69 | 14·10 | 15·55 |

Greater mortality amongst males.

The excessive number of deaths of males arises chiefly from their occupations, with the accidents and exposure attendant thereon. This is especially marked in the country districts of the Colony, where deaths from accidents are extremely numerous, especially among males. Besides this, the greater delicateness of male infants operates to increase the death-rate as compared with that of females. It has been shown elsewhere that the natural increment to the population by births is in the proportion of 104·75 males to 100 females, but, from the causes just alluded to, the net increase of population by excess of births over deaths is largely in favour of females. For the five years, 1882–6, this excess averaged 12·06 per annum.

Comparison of male with female deaths.

The excess of males in the community, with the consequent larger number of deaths, makes the comparison appear more favourable to female lives than is actually the case. The following table has been computed on the assumption that the males and females in the community are equal in number, as they soon would be if there were no excess of male immigration. It would appear, however, from the table, that the extra proportion of males born would by no means counterbalance the extra number dying.

| Year. | Male deaths. | Female deaths. | Computed male deaths, if male and female population were equal. | Excess of computed male over female deaths. | Excess of male over female births. |
|---|---|---|---|---|---|
| 1876 | 6,508 | 4,685 | 5,470 | 785 | 284 |
| 1877 | 5,877 | 3,992 | 4,933 | 941 | 733 |
| 1878 | 6,284 | 4,479 | 5,263 | 784 | 736 |
| 1879 | 6,082 | 4,118 | 5,081 | 963 | 747 |
| 1880 | 6,638 | 4,593 | 5,523 | 930 | 686 |
| 1881 | 6,753 | 4,783 | 5,585 | 802 | 789 |
| 1882 | 7,596 | 5,220 | 6,278 | 1,058 | 472 |
| 1883 | 7,116 | 5,133 | 5,884 | 751 | 747 |
| 1884 | 8,325 | 5,895 | 6,863 | 968 | 888 |
| 1885 | 8,900 | 6,382 | 7,296 | 914 | 835 |
| 1886 | 8,501 | 6,086 | 6,941 | 855 | 1,116 |
| Total for eleven years…………………… | | | | 9,751 | 8,033 |

Deaths most numerous in March quarter.

The season of the year at which most deaths occur is the quarter ending March, but the deaths in the December quarter are nearly as numerous, and for some years have exceeded those of the first quarter. The deaths for 1886 show a very satisfactory decline from those of the previous year, the decrease being chiefly in the summer quarters.

Taking the last ten years, the deaths during each quarter of the year were :—

No. 63.—Deaths during Each Quarter of the Year.

| Year. | 31st March. | 30th June. | 30th September. | 31st December. |
|---|---|---|---|---|
| 1877 | 2,843 | 2,659 | 2,127 | 2,240 |
| 1878 | 2,953 | 3,018 | 2,336 | 2,456 |
| 1879 | 2,857 | 2,563 | 2,232 | 2,548 |
| 1880 | 2.677 | 2.621 | 2,571 | 3,362 |
| 1881 | 3,169 | 2,825 | 1,608 | 2,934 |
| 1882 | 3,485 | 3,290 | 2,911 | 3,130 |
| 1883 | 3,125 | 3,081 | 2,790 | 3,253 |
| 1884 | 3,699 | 3,602 | 3,126 | 3,793 |
| 1885 | 3,924 | 3,750 | 3,586 | 4,022 |
| 1886 | 3,718 | 3,720 | 3,320 | 3,829 |

Favourable death-rate of Colony.

It has been already pointed out that in regard to its death-rate the Colony compares very favourably with the older countries of the world. Taken over a long series of years, the average deaths per thousand of mean population in the United Kingdom and several of the leading European countries, are :—

| | |
|---|---|
| Great Britain | 21·5 |
| Germany | 27·1 |
| France | 23·5 |
| Belgium | 22·5 |
| Austria | 30·8 |
| Italy | 29·8 |
| Holland | 24·2 |
| Average | 25·63 |

The years in which war raged have been omitted from the average given above, but there are many other causes in operation which increase the European rate, but which have not yet affected

Death-rate lower in Australia than Europe.

the Colonies. Chief amongst these are the scourges of small-pox and cholera. It is not, therefore, surprising that even the most healthy country of Europe has a higher annual death-rate than any Colony of Australasia. Considering the favourable environments of the population in this Colony, the matter for surprise is not that the difference is so great, but that it is not greater. Apart from climatic conditions, which are most favourable here, the social condition of the great body of the people is far superior, and their occupations more healthful than those of Europe; and were it not for the pitiable waste of infant life, the death-rate of this Colony would not reach much more than half the European average.

Mortality in the Colony and its subdivisions.

For the purpose of comparison, the obvious divisions of city, suburbs, and country districts suggest themselves.

No. 64.—Yearly Death-rate of the whole Colony, City and Suburbs of Sydney and Country Districts, 1871–86 :—

| Year. | Deaths per thousand of the population. | | | |
|---|---|---|---|---|
| | Colony. | City of Sydney. | Suburbs. | Country. |
| 1871 | 12·60 | 20·67 | 14·46 | 10·63 |
| 1872 | 14·18 | 23·04 | 14·15 | 12·37 |
| 1873 | 13·97 | 22·37 | 14·63 | 12·15 |
| 1874 | 15·32 | 25·16 | 16·59 | 13·12 |
| 1875 | 18·42 | 31·65 | 21·47 | 15·23 |
| 1876 | 18·52 | 28·87 | 20·79 | 16·05 |
| 1877 | 15·69 | 22·43 | 15·13 | 14·47 |
| 1878 | 16·36 | 25·05 | 17·37 | 14·44 |
| 1879 | 14·76 | 23·47 | 15·83 | 12·82 |
| 1880 | 15·47 | 27·26 | 19·16 | 12·32 |
| 1881 | 15·17 | 21·50 | 17·07 | 13·48 |
| 1882 | 16·12 | 23·30 | 18·71 | 14·09 |
| 1883 | 14·68 | 19·73 | 18·65 | 12·68 |
| 1884 | 16·14 | 21·36 | 21·14 | 13·78 |
| 1885 | 16·41 | 21·14 | 21·81 | 13·96 |
| 1886 | 14·89 | 17·06 | 21·04 | 12·64 |
| Mean ... | 15·55 | 23·37 | 18·00 | 13·39 |

The death-rate for the whole Colony varied from 12·60 to 18·52 a range of 5·92 per thousand. In the city, however, the rate varied between 17·06 and 31·65, the range being 14·59 per thousand; in the suburbs, the lowest rate was 14·15, and the highest touched 21·81, giving a range of 7·66 per thousand. In the country districts, 10·63 was the lowest rate in the 15 years and 16·05 the highest, 5·42 being the range.

No. 65.—Maximum, Minimum, and Mean Death-rate :—

| Districts. | Per thousand of mean population. | | |
|---|---|---|---|
| | Maximum. | Minimum. | Mean. |
| Colony ............... | 18·52 | 12·60 | 15·55 |
| City .................. | 31·65 | 17·06 | 23·37 |
| Suburbs ............ | 21·81 | 14·15 | 18·00 |
| Country ............ | 16·05 | 10·63 | 13·39 |

**Death-rate of persons over five years.**

Taking the deaths of persons over 5 years of age, the rates are not only more favourable, but are more equal for the metropolitan district and the country.

No. 66.—Maximum, Minimum, and Mean Death-rates of Persons Over Five Years of Age :—

| Districts. | Per thousand of mean population. | | |
|---|---|---|---|
| | Maximum. | Minimum. | Mean. |
| Colony ............... | 12·78 | 8·70 | 10·43 |
| City .................. | 19·70 | 12·87 | 15·52 |
| Suburbs ............ | 11·69 | 7·64 | 9·53 |
| Country ............ | 11·71 | 7·97 | 9·60 |

**Infant mortality cause of high death-rate in city and suburbs.**

The city maximum rate was in 1876, and is the disturbing element in the whole series, otherwise the death-rates are particularly favourable for these ages. Turning to those under 5 years, which may be generally termed the ages of infantile life, the chief factor of the excessive death-rate of the city and suburbs will be found.

No. 67.—Maximum, Minimum, and Mean Death-rate of Children Under Five Years of Age :—

| Districts. | Per thousand of mean population. | | |
|---|---|---|---|
| | Maximum. | Minimum. | Mean. |
| Colony............... | 53·64 | 32·56 | 44·22 |
| City.................... | 105·64 | 59·91 | 73·56 |
| Suburbs ............ | 86·99 | 46·02 | 69·25 |
| Country ............ | 40·37 | 24·00 | 84·22 |

The lesson conveyed by the above table is a very striking one. The minimum death-rate of infants in the suburbs exceeded the maximum rate of the country by about 14 per cent., and the minimum of the city exceeded the country maximum by almost 50 per cent. The mean rate of the country was not half of that of the suburbs, nor more than 46 per cent. of the city rate.

**Natural salubrity of the Colony.**

When the circumstances of life in the country districts are considered, the distance sick persons are removed from the comforts, and even the necessaries, which sickness demands, the full meaning of the low rate, both for adults and children, will best be understood. No more potent argument could be advanced as to the natural salubrity of the Colony than the bare statement of the death-rates, as experienced outside the walls of the metropolis.

**Death-rate of children lowest in the country.**

All satisfaction, however, in regard to the low death-rate is confined to the country districts. As far as Sydney and its suburbs are concerned, there is not only no cause for congratulation, but, on the contrary, the rate at which children of tender years drop into the grave forms a pathetic commentary on our civilization. In 1875, out of every thousand children under 5 years of age in the city, nearly 106 died during the year. Nor does that year's record stand as a solitary warning of the results of disease and neglect, for five years afterwards the number of children who died out of every thousand was no less than 96, and taking the whole period embraced in the table, the death-rate of children under 5 years was almost 74 per thousand.

Death-rate in the suburbs.

Turning to the suburbs, which most persons have been accustomed to look upon as healthy retreats from the confinement of the city, the case is still more alarming. It may be true that the death-rate of infants, taken for 15 years, is less than in the city, but the hope of the city lies in the fact that its condition has steadily improved, and may continue to do so, while, in regard to the suburbs, the rate has been steadily growing. At the commencement of the fifteen years' period, the suburbs boasted a death-rate one-third less than the city ; now it is almost as much higher.

Comparison of quinquennial periods.

In order to illustrate the gradual change which has occurred during the past 15 years, the following quinquennial table has been compiled.

No. 68.—Death-rate of the Colony, City, Suburbs, and Country Districts in Quinquennial Periods, 1871-85 :—

| Quinquennial records. | Colony. | City. | Suburbs. | Country. |
|---|---|---|---|---|
| | | *All ages.* | | |
| 1871-75 | 14·90 | 24·58 | 16·26 | 12·70 |
| 1876-80 | 16·16 | 25·42 | 17·66 | 14 02 |
| 1881-85 | 15·70 | 21·41 | 19·48 | 13·60 |
| 1886 | 14·89 | 17·06 | 21·04 | 12·64 |
| | | *Over 5 years.* | | |
| 1871-75 | 10·16 | 15·85 | 8·70 | 9.29 |
| 1876-80 | 10·77 | 16·84 | 9·02 | 9·89 |
| 1881-85 | 10·46 | 14 71 | 10·35 | 9 61 |
| 1886 | 9 87 | 11·32 | 11·69 | 9·05 |
| | | *Under 5 years.* | | |
| 1871-75 | 39·54 | 75·33 | 56·01 | 30·37 |
| 1876-80 | 46·41 | 80·34 | 74·06 | 36·32 |
| 1881-85 | 46·50 | 67·25 | 76·63 | 35·86 |
| 1886 | 45·33 | 60 91 | 74·58 | 33·98 |

Some improvement may be noticed in the death-rate of the city, both for ages over and under 5 years. In the country, during the middle period, the rate showed an increase, particularly amongst infant lives, but the last quinquennial period is marked by a slight recovery. As regards the suburbs, the signs are very discouraging. During the first period there were fewer deaths per thousand in the suburbs of persons over 5 years than even in the country; now the rate is much higher. As regards children under 5 years, though the rate is very much higher than the country, the suburbs during the period 1871-75 showed a better death-rate than that of the city. During the last period the suburban rate was much more than twice that of the country districts, and considerably higher than the city.

Death-rate of persons under and over 5 years.

The following extended tables show the proportion of children under 5 years, and of persons over that age, who died, as compared with the whole population :—

No. 69.—Death rate per thousand of Mean Population of Children under Five Years, and Persons over that age in the Colony, City, Suburbs, and Country Districts—1871–75.

| Year. | Children under 5 years. | | | | Persons over 5 years. | | | |
|---|---|---|---|---|---|---|---|---|
| | Colony. | City. | Suburbs. | Country. | Colony. | City. | Suburbs. | Country. |
| 1871 | 32·56 | 65·35 | 47·57 | 24·00 | 8·70 | 12·87 | 7·79 | 7·97 |
| 1872 | 37·16 | 69·26 | 46·95 | 29·58 | 9·68 | 14·89 | 7·64 | 9·31 |
| 1873 | 32·97 | 59·91 | 46·02 | 25·84 | 10·28 | 15·79 | 8·53 | 9·44 |
| 1874 | 41·37 | 76·51 | 59·18 | 32·07 | 10·31 | 16·30 | 8 65 | 9·38 |
| 1875 | 53·64 | 105·64 | 80·35 | 40·37 | 11·81 | 19·43 | 11·23 | 10·35 |
| 1876 | 49·66 | 86·55 | 80·71 | 38·52 | 12·78 | 19·70 | 11·02 | 11·71 |
| 1877 | 44·41 | 67·42 | 61·56 | 37·83 | 10·47 | 15·38 | 7·91 | 9·98 |
| 1878 | 49·39 | 82·08 | 73·91 | 39·77 | 10·51 | 16·20 | 8·85 | 9·71 |
| 1879 | 42·75 | 69·34 | 67·13 | 33.88 | 9·90 | 16·35 | 8·22 | 8·97 |
| 1880 | 45·83 | 95·30 | 86·99 | 31·62 | 10·21 | 16·61 | 9·12 | 8·07 |
| 1881 | 43·63 | 61·79 | 71·00 | 35·21 | 10·25 | 15·42 | 8·94 | 9·52 |
| 1882 | 46·61 | 70·27 | 74·93 | 36·66 | 10·86 | 16·38 | 9·90 | 10·00 |
| 1883 | 43·46 | 65·32 | 73·48 | 33·12 | 9·75 | 13·11 | 10·02 | 9·00 |
| 1884 | 48·92 | 71·49 | 82·22 | 36·98 | 10·60 | 14·26 | 11·25 | 9·68 |
| 1885 | 49·90 | 69·82 | 81·50 | 37·84 | 10·85 | 14·51 | 11·68 | 9·87 |
| 1886 | 45·33 | 60·91 | 74·58 | 33·98 | 9·78 | 11·32 | 11·69 | 9·05 |
| Mean... | 44·22- | 73·56 | 69·25 | 34·22 | 10·43 | 15·52 | 9·53 | 9·60 |

Deaths of children under one year.

The following tables give the number of children under 1 year dying in the city, suburbs, and country, and the number per thousand, as compared with the births. This latter approximately represents the proportion of children born who died within a year.

No. 70.—Deaths of Children under One Year of age, in the Colony, City, Suburbs, and Country Districts, 1871–86 :—

| Year. | Colony. | | City. | | Suburbs. | | Country. | |
|---|---|---|---|---|---|---|---|---|
| | Total. | Per 1,000 births. | Total. | Per 1,000 births. | Total. | Per 1,000 births. | Total. | Per 1,000 births |
| 1871 | 1,812 | 89·9 | 467 | 156·7 | 318 | 122·2 | 1,027 | 70·5 |
| 1872 | 2,116 | 104·4 | 507 | 176·1 | 339 | 139·1 | 1,270 | 85·0 |
| 1873 | 1.985 | 92·5 | 487 | 158·8 | 341 | 123·4 | 1,157 | 74·0 |
| 1874 | 2,428 | 109·4 | 588 | 188·4 | 403 | 144·6 | 1,437 | 88·3 |
| 1875 | 2,695 | 119·6 | 613 | 193·8 | 461 | 158·5 | 1,621 | 98·4 |
| 1876 | 2,629 | 112·8 | 561 | 169·4 | 521 | 170·3 | 1,547 | 91·3 |
| 1877 | 2,785 | 116·7 | 562 | 165·3 | 476 | 146·6 | 1,747 | 101·5 |
| 1878 | 3,126 | 123·4 | 650 | 186·5 | 591 | 160·8 | 1,885 | 103·7 |
| 1879 | 2,886 | 107·1 | 612 | 164·7 | 594 | 143·2 | 1,680 | 88·0 |
| 1880 | 3,200 | 113·6 | 785 | 210·1 | 821 | 177·7 | 1,594 | 80·4 |
| 1881 | 3,341 | 115·2 | 608 | 162·5 | 836 | 161·6 | 1,897 | 94·4 |
| 1882 | 3,897 | 131·2 | 737 | 196·3 | 1,028 | 174·9 | 2,132 | 106·2 |
| 1883 | 3,590 | 114·7 | 668 | 177·8 | 1,012 | 154·8 | 1,910 | 90·9 |
| 1884 | 4,285 | 126·2 | 769 | 186·2 | 1,272 | 164·2 | 2,244 | 101·6 |
| 1885 | 4,596 | 131·1 | 780 | 200·7 | 1,512 | 180·4 | 2,304 | 101.1 |
| 1886 | 4,663 | 128·3 | 702 | 181·5 | 1,602 | 172·3 | 2,359 | 101·9 |
| Mean... | ...... | 114·7 | ...... | 179·7 | ...... | 155·9 | ...... | 92·3 |

Loss of infant life increasing.

Taking the whole period, it is quite evident that the loss of infant life is increasing, to what extent will be best seen by dividing the period into series of five years.

Deaths of Children under One Year per Thousand Births, in Quinquennial Periods :—

| Quinquennial period. | Colony. | City. | Suburbs. | Country districts. |
|---|---|---|---|---|
| 1871–75 | 103·16 | 174·76 | 137·56 | 83·24 |
| 1876–80 | 114·72 | 179·20 | 159·72 | 92·98 |
| 1881–85 | 123·68 | 184·70 | 167·18 | 98·84 |
| 1886 | 128·30 | 181·50 | 172·30 | 101·90 |

Infant mortality greater in towns.

The experience of the United Kingdom shows that infant mortality is always higher in large towns than in the country districts. The experience of this Colony is somewhat similar. But, though the conditions of life in England are more favourable in the country districts than in the towns, the same is not necessarily the case here. In sparsely scattered communities, such as the country districts of this Colony mainly comprise, it is frequently impossible to obtain for children of tender years articles which in towns are considered, and rightly so, almost necessaries of life. Were it not, therefore, for the contagions which seem incidental to towns, the death-rate of children might naturally be expected to be, so far as this Colony is concerned, higher in the country than in the city. That such is not the case is evident, from the tables given above. Compared with the other colonies, and England and France, the rates of New South Wales nevertheless seem very favourable.

The Colonies compared with England and France.

No. 71.—Comparison of Death-rates of Children under One Year in the various Australasian Colonies, and in England and France :—

| Country. | Deaths of children under 1 year per 1,000 births. |
|---|---|
| New South Wales | 114·70 |
| „ „ country districts | 92·30 |
| Victoria | 123·80 |
| South Australia | 148·60 |
| Queensland | 128·95 |
| New Zealand | 98·30 |
| Tasmania | 104·65 |
| England and Wales | 140·00 |
| France | 157·00 |

Comparison favourable to New South Wales.

The death-rate of infants in the country districts is lighter than that of any country included in the above table, and that of the whole Colony is only surpassed in healthiness by Tasmania and New Zealand.

Colony compares favourably with other countries.

The general salubrity of the Colony may be taken as well established, and if the deaths of Sydney and suburbs, especially amongst young children, were not relatively more numerous than for the rest of the Colony, New South Wales need not fear comparison with any country.

The high death-rates of Sydney certainly do not arise from natural causes. Seated on the hilly shores of Port Jackson, its situation is all that could be desired, and the configuration of the ground on which it stands is especially adapted to the requirements of a perfect drainage system. What Nature with lavish hand has bestowed, is, however, in danger of being destroyed or polluted; for, looking through the causes of death, the conclusion is inevitable that no small part of the mortality of Sydney and its suburbs arises primarily, or indirectly, from diseases which precautions might avert.

Infant death-rate in the City formerly higher

As far as the city proper is concerned, its death-rate for infant life was high twenty years ago, and has been more alarming than at present; but once roused to a recognition of this state of things, the inhabitants began to desert the sewerless streets of the city for the healthful districts round about, and thus the suburbs were gradually formed. Fifteen years ago, the mortality in the suburbs, amongst children under five, was 47·57 per thousand; in 1886 it was 74·58; and in 1880, 86·99—practically twice as great as in the first-mentioned year. Now, instead of being healthier than the city, as most persons still imagine, the suburbs of Sydney exhibit on the whole a much higher death rate.

High death-rate of 1875.

In 1875, Sydney was troubled by an extraordinary visitation of sickness; children died, stricken by diarrhœa and atrophy, pneumonia and bronchitis, diphtheria and scarlatina, convulsions, and measles. Its children were literally decimated, for out of 23,327 children of five years and under, 2,177 died during the year. From that terrible visitation the city has to some extent recovered, but the suburbs have not entirely regained their normal state.

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In the years prior to 1875, the death-rate of the city was about 20·0 per thousand greater than that of the suburbs, but in 1886 the suburban death-rate of children under five years was 13·67 per thousand more than the city.

**Sydney compares well with other capitals.**

In spite of its apparently high mortality, compared with several other Australian capitals the result is generally favourable to Sydney, and considerably below that of the chief European cities.

No. 72.—Death-rate per Thousand of the chief Australian and European cities :—

*Australasian.*

| | | | |
|---|---|---|---|
| Adelaide | 23·6 | Melbourne | 20·4 |
| Hobart | 23·2 | Brisbane | 18·8 |
| Sydney | 21·0 | Wellington | 13·4 |

*United Kingdom.*

| | | | |
|---|---|---|---|
| Manchester | 29·9 | Glasgow | 24·2 |
| Dublin | 29·6 | Bristol | 23·7 |
| Liverpool | 29·1 | London | 22·8 |
| Salford | 27·8 | Plymouth | 22·3 |
| Newcastle | 26·6 | Edinburgh | 20·8 |
| Sheffield | 25·8 | Portsmouth | 20·2 |
| Birmingham | 24·4 | | |

*Continental Europe.*

| | | | |
|---|---|---|---|
| St. Petersburg | 51·4 | Leipsic | 26·1 |
| Madrid | 37·4 | Stockholm | 24·7 |
| Buda-Pesth | 35·2 | Brussels | 23·9 |
| Milan | 30·6 | Amsterdam | 23·7 |
| Vienna | 29·0 | Venice | 22·7 |
| Paris | 28·6 | Copenhagen | 22·1 |
| Berlin | 27·6 | Geneva | 21·2 |
| Rome | 26·8 | Christiana | 18·8 |

This list is fairly representative, and largely as the rate for Sydney is swollen by deaths of children of tender years, whose lives are often needlessly sacrificed, the comparison is satisfactory.

## *SUICIDES.*

The number of suicides reported to the Coroner during the eleven years 1876–86, is given below.

**Number and modes of suicides.**

No. 73.—Number and Mode of Death of Suicides:—

| Year. | Drowning. | | Hanging. | | Shooting. | | Cutting throat. | | Poison. | | Wounds on body. | | Other modes. | | Totals. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. | M. | F. |
| 1876 | 8 | 3 | 7 | ... | 4 | ... | 15 | 2 | 17 | 5 | .. | ... | ... | ... | 51 | 10 |
| 1877 | 9 | 3 | 9 | 2 | 6 | ... | 11 | ... | 11 | 5 | 6 | 1 | 3 | ... | 55 | 11 |
| 1878 | 8 | 2 | 8 | ... | 2 | ... | 10 | ... | 9 | 4 | 3 | ... | 1 | 1 | 41 | 7 |
| 1879 | 8 | 1 | 13 | 1 | 9 | ... | 12 | 1 | 10 | 4 | 1 | ... | 2 | ... | 55 | 7 |
| 1880 | 3 | 4 | 16 | 5 | 8 | ... | 7 | 3 | 11 | 5 | 2 | ... | 3 | ... | 50 | 17 |
| 1881 | 10 | 2 | 24 | 3 | 13 | ... | 10 | 1 | 8 | 4 | .. | ... | 3 | .. | 68 | 10 |
| 1882 | 5 | 4 | 16 | 2 | 7 | ... | 11 | ... | 11 | 2 | 2 | ... | ... | ... | 52 | 8 |
| 1883 | 5 | 4 | 15 | 2 | 6 | ... | 10 | 1 | 10 | 4 | 2 | ... | ... | ... | 48 | 11 |
| 1884 | 12 | 1 | 13 | 2 | 6 | ... | 10 | 1 | 10 | 4 | 3 | ... | 1 | ... | 55 | 8 |
| 1885 | 14 | ... | 12 | ... | 5 | ... | 6 | ... | 9 | 7 | 2 | ... | 4 | ... | 52 | 7 |
| 1886 | 9 | 1 | 10 | 1 | 6 | ... | 5 | ... | 6 | 1 | 2 | ... | 4 | 1 | 42 | 4 |
| Total... | 91 | 25 | 143 | 18 | 72 | ... | 107 | 9 | 112 | 45 | 23 | 1 | 21 | 2 | 569 | 100 |

**Suicides decreasing.**

Suicide by hanging claims the largest number of male victims for the eleven years ended 1886, viz., 143; but death by poisoning was most favoured by women. The proportion of deaths by suicide to the total deaths has been decreasing for some years past, the average for 1886 being less than for any year during the whole period.

**Proportion of suicides to total deaths.**

No. 74.—Number of Suicides and their Proportion to Total Deaths, 1876–86 :—

| Year. | Suicides by males. | | Suicides by females. | | Total Suicides. | |
|---|---|---|---|---|---|---|
| | Number. | Per thousand of total deaths of males. | Number. | Per thousand of total deaths of females. | Number. | Per thousand deaths. |
| 1876 | 51 | 7·8 | 10 | 2·1 | 61 | 5·45 |
| 1877 | 55 | 9·4 | 11 | 2·7 | 66 | 6·68 |
| 1878 | 41 | 6·5 | 7 | 1·6 | 48 | 4·46 |
| 1879 | 55 | 9·0 | 7 | 1·7 | 62 | 6·08 |
| 1880 | 50 | 7·5 | 17 | 3·8 | 67 | 5·96 |
| 1881 | 68 | 10·0 | 10 | 2·1 | 78 | 6·76 |
| 1882 | 52 | 6·8 | 8 | 1·5 | 60 | 4·68 |
| 1883 | 48 | 6·7 | 11 | 2·1 | 59 | 4·82 |
| 1884 | 55 | 6·6 | 8 | 1·4 | 63 | 4·43 |
| 1885 | 52 | 5·8 | 7 | 1·1 | 59 | 3·86 |
| 1886 | 42 | 4·9 | 4 | 0·7 | 46 | 3·15 |

**Proportion to population.**

In proportion to the whole population, the yearly number of suicides is very light, and bears favourable comparison with the other colonies of the group. For the sake of clearness the rates in the following table are for every 100,000 of the population.

No. 75.—Deaths from Suicide 1876–85 :—

| Year. | Number of suicides. | Per 100,000 persons living of mean population. |
|---|---|---|
| 1876 | 61 | 10·10 |
| 1877 | 66 | 10·49 |
| 1878 | 48 | 7·30 |
| 1879 | 62 | 8·98 |
| 1880 | 67 | 9·23 |
| 1881 | 78 | 10·26 |
| 1882 | 60 | 7·55 |
| 1883 | 59 | 7·07 |
| 1884 | 63 | 7·15 |
| 1885 | 59 | 6·34 |
| 1886 | 56 | 4·69 |
| | | Mean ... 8·10 |

Suicides in New South Wales compared with other colonies.

The rates of the other Australasian Colonies are for the most part higher than in New South Wales; though in respect to suicide, all the Colonies, Tasmania alone excepted, compare somewhat unfavourably with the United Kingdom, where deaths by suicide average only 6·75 per 100,000.

No. 76.—Deaths from Suicide in the Australasian Colonies :—

| Colony. | Deaths per 100,000 persons living. |
|---|---|
| New South Wales | 8·10 |
| Tasmania | 5·8 |
| South Australia | 8·6 |
| New Zealand | 8·7 |
| Victoria | 11·8 |
| Queensland | 13·3 |

## *VACCINATION.*

Vaccination returns.

Vaccination is not compulsory in New South Wales, and is resorted to only in times of scare, when an epidemic of small-pox is thought imminent. It is easy to discover, from the returns of the Government vaccinators, the years when the community was threatened by the disease, as at such times the number of persons submitting themselves to vaccination largely increased. The number returned does not include those treated by private medical officers, by whom a large number of persons are vaccinated.

No. 77.—Persons Vaccinated by Government Medical Officers :—

| Year. | Sydney and Suburbs. | Country. | Total. | Year. | Sydney and Suburbs. | Country. | Total. |
|---|---|---|---|---|---|---|---|
| 1876 | 1,269 | 3,276 | 4,545 | 1882 | 380 | 1,869 | 2,249 |
| 1877 | 5,308 | 11,943 | 17,251 | 1883 | 296 | 600 | 896 |
| 1878 | 532 | 3,038 | 3,570 | 1884 | 630 | 6,569 | 7,199 |
| 1879 | 657 | 4,981 | 5,638 | 1885 | 245 | 1,876 | 2,121 |
| 1880 | 460 | 4,699 | 5,159 | 1886 | 452 | 1,191 | 1,643 |
| 1881 | 8,738 | 51,481 | 60,219 | | | | |

Age of persons vaccinated.

The ages of persons vaccinated during the year 1886 will be found below.

No. 78.—Number and Ages of Persons Vaccinated by the Government Vaccinators during 1886 :—

| District. | Under 1 year. | From 1 to 5 years. | From 5 to 10 years. | 10 years and upwards. | Total. |
|---|---|---|---|---|---|
| Sydney and suburbs | 116 | 190 | 146 | ... | 452 |
| Country districts | 229 | 403 | 372 | 187 | 1,191 |
| Total | 345 | 593 | 518 | 187 | 1,643 |

## *INSANITY.*

The number of insane persons under treatment in hospitals is almost a fixed proportion of the total population, viz., 2·81 per thousand. Since 1872, the proportion has varied only 0·10 above, and 0·14 per thousand below the average stated. The hospitals for insane, under the immediate control of the Government, are five in number; four for ordinary insane, and one, at Parramatta, for criminals. Besides these, there is one licensed house.

Number of insane under treatment.

On the 31st December, 1886, the persons under treatment numbered 2,717, distributed as follows :—

No. 79.—Insane Persons in the Colony under Official Cognizance on 31st December, 1886.

| | No. on Register. | | |
|---|---|---|---|
| | Males. | Females. | Total. |
| Hospital for Insane, Gladesville | 472 | 271 | 743 |
| " Parramatta, free | 609 | 347 | 956 |
| " " criminal | 48 | 8 | 56 |
| " Callan Park | 377 | 252 | 629 |
| " Newcastle | 125 | 117 | 242 |
| " Cook's River | 13 | 78 | 91 |

Proportion of Insane a constant quantity.

The proportion of insane to the whole population, as already pointed out, is almost a constant quantity, as will be seen from the accompanying table.

No. 80.—Persons in Hospitals for Insane at the close of Each Year 1871-86:—

| Year ended 31 Dec. | No. of Insane. | Proportion of Insane to population per 1,000. | Year ended 31 Dec. | No. of Insane. | Proportion of Insane to population per 1,000. |
|---|---|---|---|---|---|
| 1871 | 1,387 | 2·67 | 1880 | 2,099 | 2·82 |
| 1872 | 1,440 | 2·69 | 1881 | 2,218 | 2·84 |
| 1873 | 1,526 | 2·75 | 1882 | 2,307 | 2·84 |
| 1874 | 1,583 | 2·76 | 1883 | 2,403 | 2·87 |
| 1875 | 1,697 | 2·85 | 1884 | 2,524 | 2·89 |
| 1876 | 1,743 | 2·83 | 1885 | 2,643 | 2·89 |
| 1877 | 1,829 | 2·84 | 1886 | 2,717 | 2·71 |
| 1878 | 1,916 | 2·85 | | | |
| 1879 | 2,011 | 2·83 | | Mean... | 2·81 |

Amount of Insanity in England.

The amount of insanity in New South Wales and in England, compared with their respective populations, is about the same, though there appears to be a tendency in the latter country for the rate to increase. The greatest proportion of lunacy in these colonies is found in Victoria, and the lowest in South Australia.

No. 81.—Insanity in England and Australasian Colonies:—

| Country. | Insane persons per 1,000 of population. | Country. | Insane persons per 1,000 of population. |
|---|---|---|---|
| England ........................ | 2·74 | Queensland ...................... | 2·63 |
| New South Wales ............ | 2·80 | South Australia ............... | 2·28 |
| Victoria ........................... | 3·36 | New Zealand ................... | 2·88 |

**Death-rate of the Insane.**

The per-centage of deaths of insane persons is comparatively light; on the basis of the average number resident, the following table has been computed :—

No. 82.—Deaths in Hospitals for Insane.

| Year. | Per-centage of deaths of average number resident. | | | Year. | Per-centage of deaths of average number resident. | | |
|---|---|---|---|---|---|---|---|
| | Male. | Female. | Total. | | Male. | Female. | Total. |
| 1876 | 7·76 | 5·85 | 7·03 | 1882 | 6·76 | 5·61 | 6·32 |
| 1877 | 8·90 | 4·25 | 7·19 | 1883 | 9·71 | 4·98 | 6·64 |
| 1878 | 8·57 | 5·23 | 7·32 | 1884 | 8·18 | 6·22 | 7·43 |
| 1879 | 7·63 | 4·28 | 6·85 | 1885 | 7·61 | 4·97 | 6·59 |
| 1880 | 7·75 | 5·93 | 7·04 | 1886 | 7·54 | 6·31 | 7·08 |
| 1881 | 6·52 | 4·21 | 5·63 | Mean... | 7·90 | 5·27 | 6·83 |

**Increase of admissions in seasons of depression.**

The number of persons admitted to the hospitals has varied a great deal; during the past two years, the effect of the continued commercial depression was experienced in the unusual number of idiotic and imbecile children, as well as demented people, found amongst the admissions, whose relatives would willingly have maintained them in more prosperous times.

No. 83.—Admissions to Hospitals for the Insane during Each Year, and Proportion to the Mean Population :—

| Year. | Admissions. | Proportion to population per 1,000. | Year. | Admissions. | Proportion to population per 1,000. |
|---|---|---|---|---|---|
| 1871 | 340 | 0·66 | 1879 | 440 | 0·63 |
| 1872 | 303 | 0·57 | 1880 | 476 | 0·65 |
| 1873 | 342 | 0·62 | 1881 | 494 | 0·64 |
| 1874 | 330 | 0·58 | 1882 | 473 | 0·59 |
| 1875 | 356 | 0·60 | 1883 | 476 | 0·57 |
| 1876 | 360 | 0·59 | 1884 | 493 | 0·55 |
| 1877 | 457 | 0·72 | 1885 | 567 | 0·60 |
| 1878 | 424 | 0·64 | 1886 | 567 | 0·58 |
| | | | | Mean ... | 0·61 |

Influx of Insane from abroad.

There is no law in force in this Colony to prevent the influx of insane persons; as a consequence, the splendid hospitals, which the bounty of the Government has established for the treatment of the insane, have been the means of burdening the community with the care of unfortunate persons belonging to other countries, where the treatment meted out to the insane is less generous or less scientific than in New South Wales. Were it not for this influx of insane from outside its boundaries, the rate for this Colony would be much lower than it is at present. The number of foreign born patients during 1886, was 365, or nearly 11 per cent. of the whole, which is quite out of proportion to the number of foreigners in the community. The birthplaces of the patients will be found below.

No. 84.—Birth-places of Patients in Hospitals for Insane, 1886:—

| Country. | No. of patients. | Per centage to total. |
|---|---|---|
| New South Wales | 936 | 28·15 |
| Other British Colonies | 103 | 3·07 |
| England | 792 | 23·82 |
| Ireland | 960 | 28·90 |
| Scotland | 169 | 5·08 |
| France | 19 | 0·57 |
| Germany | 79 | 2·38 |
| China | 80 | 2·41 |
| Other countries | 187 | 5·62 |

Small proportion of Insane born in the Colony.

The number of persons under restraint, who are natives of this Colony, is only 28·15 per cent. of the total, whilst the native-born element of the total population is at least 64 per cent. Of the British-born patients, England contributes very nearly twice the number that her population in this country would warrant, and Ireland at least thrice the number.

Ages of Insane.

The ages of the insane are set forth in the following table, which shows that more than one-fourth of the whole number are between 40 and 50 years of age.

No. 85.—Ages of Patients in Hospitals for Insane, with Percentage at Each Year, 1886 :—

| Ages. | No. of Patients. | Per-centage of all ages. | Per-centage to total population at respective ages, Census 1881. |
|---|---|---|---|
| Under 5 years | 2 | ·06 | 14·84 |
| 5 to 10 | 19 | ·57 | 13·22 |
| 10 „ 15 | 42 | 1·26 | 11·81 |
| 15 „ 20 | 95 | 2·85 | 10·11 |
| 20 „ 30 | 498 | 14·97 | 18·03 |
| 30 „ 40 | 779 | 23·42 | 12·95 |
| 40 „ 50 | 848 | 25·53 | 9·46 |
| 50 „ 60 | 589 | 17·71 | 5·27 |
| 60 „ 70 | 302 | 9·08 | 2·96 |
| 70 „ 80 | 125 | 3·76 | 1·09 |
| 80 years and upwards | 26 | ·79 | 0·26 |

The major portion of the persons under restraint are single; amongst the married, females largely predominate, as also amongst the widowed.

No. 86.—Condition as to Marriage of Patients in Hospitals for the Insane during 1886 :—

| | Male. | Female. | Total. |
|---|---|---|---|
| Single | 1,285 | 506 | 1,791 |
| Married | 424 | 587 | 1,011 |
| Widowed | 76 | 128 | 204 |
| Unascertained | 204 | 115 | 319 |

Intemperance as a cause of Insanity.

It is popularly supposed that the principal cause of insanity is intemperance. The experience of this Colony, however, does not bear out this opinion. The amount of insanity directly due to drink, though certainly large, is not so considerable as that due to other causes. As far as the records of the hospitals show, the per centage of persons admitted suffering from insanity traceable to intemperance, is not more than 11·24 per cent. of the total admissions.

Persons insane from drink soon recover.

Persons suffering from mania induced by excess of drink recover comparatively quickly, and at any one time their number in the hospitals for the insane is scarcely more than 5·50 per cent. The most potent cause of insanity appears to be hereditary influence. How far this is productive of insanity in this Colony cannot be ascertained; for though, on the high authority of the Inspector-General of the Insane, ascertained hereditary influence and congenital defect can be only credited with 10·61 per cent. of the total insanity, this per-centage gives no idea of the actual amount of hereditary insanity in the Colony. Of the large number of patients, the causes of whose insanity is unknown, it is believed that in most instances the insanity is due to hereditary influence, while in those cases where the primary cause of insanity has been ascertained, there is strong likelihood that many of the patients have inherited an insane neurosis.

Insane neurosis.

No. 87.—Causation of Insanity :—

| Cause of Insanity. | Per-centage of male insanity. | Per-centage of female insanity. | Per-centage of Total insanity. | — |
|---|---|---|---|---|
| Moral :— | | | | |
| Domestic trouble (including loss of relatives and friends) ... ........... | 0·92 | 6·15 | 2·84 | 14·23 |
| Adverse circumstances (including business anxiety and pecuniary difficulties) ............... ............... | 2·84 | 0·21 | 2·13 | |
| Mental anxiety and "worry" (not included under above two heads), and overwork .......... ............... | 3·10 | 3·64 | 3·30 | |
| Religious excitement ... .............. | 2·51 | 4·10 | 3·09 | |
| Love affairs (including seduction) ... | 0·39 | 1·03 | 0·62 | |
| Fright and nervous attack ............ | ... | 1·48 | 0·54 | |
| Isolation .................................. | 1·65 | 1·14 | 1·46 | |
| Nostalgia.................................. | 0·33 | 0·11 | 0·25 | |

| Cause of Insanity. | Per-centage of male insanity. | Per-centage of female insanity. | Per-centage of Total insanity. | — |
|---|---|---|---|---|
| *Continued—* | | | | |
| Physical :— | | | | |
| Intemperance in drink | 13·14 | 7·97 | 11·24 | 53·14 |
| Do (sexual) | 0·16 | 0·11 | 0·08 | |
| Venereal disease | 0·13 | 0·23 | 0·21 | |
| Self-abuse | 2·77 | 0·11 | 1·79 | |
| Sunstroke | 3·76 | 1·25 | 2·84 | |
| Accident or injury | 2·77 | 0·34 | 1·88 | |
| Pregnancy | ... | 0·79 | 0·29 | |
| Parturition and the puerperal state | ... | 8·31 | 3·05 | |
| Lactation | .. | 0·79 | 0·29 | |
| Uterine and Ovarian disorders | ... | 1·03 | 0·38 | |
| Puberty | ... | 0·57 | 0·21 | |
| Change of life | ... | 1·14 | 0·43 | |
| Fevers | 0·72 | 0·03 | 0·83 | |
| Privation and overwork | 2·18 | 0·34 | 1·50 | |
| Phthisis | 0·13 | 0·23 | 0·21 | |
| Epilepsy | 4·75 | 3·98 | 4·64 | |
| Disease of skull and brain | 3·10 | 1·03 | 2·34 | |
| Old Age | 1·05 | 0·79 | 0·96 | |
| Other bodily diseases and disorders | 1·98 | 2·05 | 2·00 | |
| Excess of opium | 0.26 | ... | 0·16 | |
| Previous attacks | 4·16 | 5·35 | 4·76 | |
| Hereditary influence ascertained | 5·28 | 6·72 | 5·81 | |
| Congenital defect ascertained | 4·81 | 4·78 | 4·80 | |
| Other ascertained causes | 2·57 | 2·16 | 2·44 | |
| Unknown | 34·54 | 32·04 | 32·63 | 32·63 |

Cost of patients

The average cost of insane patients is about 12s. 5d. per week, of which the State pays 11s. 4d., the balance being made up by contributions from the estates of the patients themselves, or by their friends.

No. 88.—Average Weekly Cost of Patients in Hospitals for the Insane, 1879-86 :—

| Year. | Cost per head to State. | Contribution per head from private sources. | Total weekly cost per head. |
|---|---|---|---|
| | s. d. | s. d. | s. d. |
| 1879 | 12 1 | 0 7¼ | 12 8¼ |
| 1880 | 10 8¾ | 1 0¼ | 11 9 |
| 1881 | 10 8¼ | 1 2¼ | 11 10½ |
| 1882 | 12 0¼ | 1 2¼ | 13 2½ |
| 1883 | 11 5⅝ | 1 0¼ | 12 5⅞ |
| 1884 | 10 11⅞ | 1 3¼ | 12 3⅛ |
| 1885 | 11 3½ | 1 4½ | 12 8 |
| 1886 | 11 1¾ | 1 5½ | 12 7¼ |

Criminal lunatics are confined at Parramatta, and usually number between 50 and 60 persons. The offences for which they are detained are amongst the blackest in the calendar, as will be seen from the table below. Criminal Insane.

No. 89.—Offences for which Criminal Insane were detained during 1886:—

| Crime. | Number of insane. | | |
|---|---|---|---|
| | Males. | Females | Total. |
| Murder | 20 | 3 | 23 |
| Attempt to murder | 2 | ... | 2 |
| Manslaughter | 2 | ... | 2 |
| Rape | 2 | ... | 2 |
| Indecent assault | 2 | ... | 2 |
| Unnatural offence | 1 | ... | 1 |
| Cutting and wounding, shooting with intent, &c. | 8 | 3 | 11 |
| Burglary and house-breaking | 4 | ... | 4 |
| Sheep and horse stealing | 2 | ... | 2 |
| Larceny and petty thefts | 1 | ... | 1 |
| Arson and malicious burning | 1 | 1 | 2 |
| Attempting suicide | 1 | 1 | 2 |
| Vagrancy | 2 | ... | 2 |
| Total | 48 | 8 | 56 |

# PART X.

## Land and Agriculture.

Various systems of land alienation.

THE systems adopted for the settlement of an industrial population on the lands of New South Wales have been many and widely different, according to the various stages of the Colony's progress and development. Commencing with grants, frequently of very extensive area, to military and naval officers and free immigrants, at a nominal rental of one peppercorn a year, the system was changed to that of sale, with or without competition. As the extent and value of the public domain became better known and appreciated, it was found absolutely necessary to legislate not merely for the day, but for the future. The question of land alienation was therefore approached in an entirely new spirit; the result being the passing of the Crown Lands Act of 1861, under the leadership of Sir John Robertson. Before this Act became law, the conditions of settlement rendered it difficult for men of small means to establish themselves with fair chances of success. The new measure aimed at facilitating the settlement of an industrial agricultural population, side by side with the pastoral tenants of the Crown, and, with this view, the Act introduced a principle entirely new to the land legislation of the Colony, namely, that of free selection, in limited areas, before survey. To this privilege was attached the condition of *boná fide* residence, and the land was to be sold at a fixed price, payable by instalments, or partly remaining at interest. The principle of unconditional sales was, however, maintained, and during the twenty-three years the Act of 1861 was in operation, there were sold 23,470,140 acres conditionally, and 15,572,001 acres by auction, improvement purchase, or otherwise without conditions; the total area alienated being

Crown Lands Act of 1861.

39,042,141 acres. In a very large number of cases the land selected, or purchased, reverted to the Crown, so that the absolute area sold, or in process of sale, when the existing Act came into force, amounted to only 33,907,459 acres, besides 7,338,539 acres alienated previous to 1861.

### *CROWN LANDS ACT OF 1884.*

Free selection before survey.

The Act of 1861 was, after many amendments, finally superseded by that of 1884, which, though differing widely from the former Act in many important particulars, maintained the principle of free selection before survey, but with one essential difference. Under the original Act, the whole area of the Crown lands of the Colony were thus thrown open to free selection, and the pastoral lands, held by tenants of the Crown, were not exempted from the operation of the law. Thus were created considerable difficulties between the two principal classes of settlers—the squatters and the selectors.

While maintaining the principle of selection before survey, the aim of the new Act was to give fixity of tenure to the pastoral lessees and obtain a larger rental from Crown Lands, at the same time restricting the area sold unconditionally. The Act became law on the first January, 1885.

Territorial divisions under this Act.

For the purposes of the Act, the whole Colony was subdivided into three natural divisions, each of which was further subdivided into various land districts, and one or more such districts form local divisions, the administration of which is entrusted to a Local Land Board, composed of a chairman and not more than two assessors. In each land district resides a land agent, whose duty is to receive all applications for land, in accordance with certain regulations having the force of law.

The conditions of alienation and pastoral occupation of Crown Lands differ in each of the three divisions above named.

## EASTERN DIVISION.

Boundaries and area.

The eastern division has an area of 60,452,000 acres, and includes a broad belt of land comprised between the sea-coast and a line nearly parallel thereto. This line starts from a point midway between the small settlements of Bonshaw and Bengalla on the Dumaresq River, on the northern frontier, and terminates at Howlong on the River Murray, and thus embraces the coastal district of the Colony, as well as the northern and southern table-lands. In this division lie all the original centres of settlement, and the markets of the Colony are more readily accessible to it than to the other districts. In it, moreover, is to be found some of the best agricultural land of the Colony. For these reasons, the conditions for the purchase and occupation of the Crown Lands are more restricted than is the case in the central and western divisions; nevertheless, every person above the age of sixteen may, upon any part of the Crown lands not specially exempted from purchase, select an area from 40 acres to 640 acres in extent, together with a conditional lease of contiguous land thrice the area of the conditional purchase. The price demanded by the State is a uniform one of £1 per acre, 2s. per acre being deposited on making the application, and the rest paid by instalments of 1s. per acre per year, together with interest of 4 per cent on the unpaid balance. The instalments begin at the end of the third year, though the whole of the balance may be paid in one sum at the selector's option, when the instalments fall due. The selector is required to reside for a term of five years, and, within two years from the date of occupation, to fence the boundaries of his conditionally purchased land with a substantial fence, and maintain the same in good order and condition. On completion of his term of continuous residence, the selector is at liberty to conditionally purchase additional areas contiguous to his original purchase, in extent from 40 acres to 640 acres, and may, if he has also a conditional leasehold, purchase the whole of the area of the said leasehold over which he possesses a

Conditonal purchases in Eastern Division.

Condition of fencing and *bonâ fide* residence.

preferent right, and, in the case of additional purchases, the conditions as to residence are not required, though that of fencing remains unaltered.

Limit of tenure of conditional leasehold.

*Conditional leaseholds.*—The conditional leasehold, in conjunction with a selection may be held for a period of five years, at a yearly rental fixed by the Local Land Board, subject to the approval of the Minister, which, however, cannot be of less than 2d. per acre, and under conditions of fencing within two years of the date of the confirmation of the application, the one fence, however, being allowed to enclose both the conditional purchase and the lease. At the expiration of five years, should the selector not use his preferent right of purchase, an extended lease of a further period of five years may be granted upon application, but without preferent right of purchase, and at the end of the extended term the land reverts to the Crown. In the event, however, of any other person selecting such land, he must pay the original holder the value of the improvements thereon, as assessed by the Local Land Board.

Payment for improvements.

*Non-residential conditional purchase.*—Land may be selected free from conditions as to residence, but the terms under which land may be thus taken up are more stringent than when the purchase is a residential one. In the first place, the area is limited to a maximum of 320 acres, and no additional conditional purchase may be made except such additional areas which, together with that of the original purchase, do not exceed this maximum, and no conditional lease be granted. The property must be fenced in within twelve months after survey, the value of fencing not being included in that of the permanent improvements, which must be made within five years after survey, to the extent of £1 per acre. Moreover, the price demanded by the State has been fixed at £2 per acre, the deposits and subsequent instalments being likewise double the sum required to be paid in the case of ordinary conditional purchases. Lastly, no person under twenty-one years of age may select under this clause, and

Limit of area.

Conditions of fencing and improvements.

Price per acre.

no person having already taken up a non-residential selection, may be permitted to make any other conditional purchase whatsoever under this Act.

*Special areas* may also be reserved from the operations of the ordinary conditional purchase clauses of the Act, and may be thrown open to selection under different terms as to payment, and with or without the condition of residence. But, in such special areas, the price of the land cannot be less than £1 10s. per acre, and the maximum area of one such purchase is fixed at 160 acres.

Price and limit of area.

## CENTRAL DIVISION.

Boundaries and area.

The central division of the Colony embraces an area of 55,460,000 acres, extending from north to south between the western limit of the eastern division and a line starting from a point on the Macintyre River, where it is crossed by the 129° of east longitude, and following this river and the Darling to the junction of Mara Creek; thence along that creek to the Bogan River, and across to the River Lachlan, between the townships of Euabelong and Condobolin, along the Lachlan to Balranald, and thence to the junction of the Edward River and the Murray, on the frontier of Victoria. The central division thus embraces the upper basin of the Darling River in the northern part of the Colony, and portions of those of the Lachlan, the Murrumbidgee, and the other affluents of the Murray. This territory has, hitherto, been mainly given over to pastoral occupation, but there is every warrant for supposing that agricultural and pastoral pursuits could successfully be carried on side by side over a considerable part of it.

*Conditional purchases and leases.*—In this division land may be conditionally purchased under the same terms as to residence, fencing improvements, price, and mode of payment as required in the eastern division, but the area of an individual selection has been fixed at 2,560 acres, with a corresponding increase in the

Limit of area and other conditions.

area of the conditional lease to three times this area, and with the same preferent right of purchase at the expiration of the first term of the lease. The area which may be purchased without residence, as well as the conditions in regard thereto, are the same for this division as for the eastern division.

### WESTERN DIVISION.

Limits and area.

The western division comprises the whole of the land situated between the western limit of the central divison and the South Australian border. It embraces an area of 79,970,000 acres, watered entirely by the Darling River. This part of New South Wales is essentially devoted to pastoral pursuits.

Water conservation, irrigation, and occupation, may in time counteract climatic conditions and irregular rainfall, and make agriculture possible over this large area, as its soil is adapted to the growth of any kind of crop. But legislation in regard to occupation and settlement of the district is based upon the assumption that for many years there will be little inducement for agricultural settlement. Therefore, conditional purchases, except in special areas, are not allowed in this division.

*Pastoral leases.*—Under the Act of 1884, the squatters, who had hitherto held their runs under leases, which did not exempt the land from the operation of the free selection system, were invited to surrender their leases to the Crown, and submit to the subdivision of the unalienated portion of their runs into two equal parts. The one part was returned to the Crown lessee, under an indefeasible lease, for a fixed term of years, according to the geographical division in which the run was situated, while the remaining portion was to be dealt with as hereafter described.

Pastoral tenure of land.

In the western division the tenure is fixed at fifteen years; in the central division at ten years; while in the eastern division five years' tenure only is granted. In each case the rent to be paid annually is determined by the Minister for Lands, after appraisement by the Local Land Board, but a minimum rental is fixed by the Act. This minimum is one penny per acre in the western division, three-halfpence per acre in the central division, and one penny per acre in the eastern division of the Colony.

Minimum rental.

xpiration of astoral lease.

Upon the expiration of a pastoral lease, the lands comprised therein may be re-let, or may be subdivided and let by auction, or tender, as a pastoral lease, or may be resumed by the Government, and all improvements on the land at the expiration of the lease become the property of the Crown, without compensation.

*Occupation licenses.*—Besides the leases for a fixed period thus granted to the run-holders of half the unalienated portions of their runs, licenses may be granted to occupy resumed areas or vacant lands. In this case the application for such occupation license must be made at the time of applying for the pastoral lease, and a deposit at the rate of £2 per section of 640 acres deposited, part of which sum may be refunded when the license fee is fixed by the Minister, after appraisement. These occupation licenses are only for a term of one year, and do not exempt the land from the operations of other clauses of the Land Act.

Deposit and term.

*Homestead Leases.*—In the western division, homestead leases may be granted within the resumed areas or vacant lands. The portion which may be taken up under this clause cannot be less than 5,760 acres, or more than 10,240 acres. These leases are granted upon application at the Lands Office and on payment of a deposit equal to one penny per acre of the area applied for. The applicant must enter into occupation within ninety days after the survey of the lease, and reside thereon at least for a period of six months during each of the first five years of his lease. During the first two years of occupation, the lessee must fence the whole of the lease, with a fence according to a prescribed design. On the expiration of the term of fifteen years, above mentioned, the homestead lease may be again leased as such by auction or tender, but the out-going tenant is not entitled to compensation for improvements. Applicants for home-

Limit of area.

Condition of occupation and fencing.

Term of lease.

stead leases are, however, required to pay for existing improvements on the land applied for, at a valuation made under the direction of the Local Land Board.

Holders of pastoral leases are not permitted to hold homestead leases, neither can any persons hold, or cause to be held on their behalf, more than one such lease.

*Scrub leases.*—Besides pastoral and homestead leases, other leases are granted under the Act for special purposes. On the recommendation of the Local Land Boards, the Minister may declare any Crown lands wholly or partly covered with scrub or noxious undergrowth to be scrub land, and such may be leased for a term not exceeding fifteen years, and in areas not exceeding 10,240 acres, and not less than 640 acres to any person, subject to an annual rental of 2s. 6d. per section of 640 acres for the first five years of the lease, 5s. for the next five years, and £1 for the remainder of the term. In special cases the Minister may, on the recommendation of the Land Board, even forego the rent, for any period not exceeding five years, but the lessee is under obligation to clear and destroy the scrub.

Minister may proclaim scrub lands.

Limit of area and terms of tenure.

*Annual leases* are also granted for pastoral purposes in areas not exceeding 1,920 acres for any Crown lands, by auction or tenders, at a minimum upset annual rental of £2 for every section of 640 acres.

Annual leases.

In addition to the various forms of alienation and occupation of the Crown Lands described above, land may be sold in the three divisions of the Colony under the following provisions:—

*Auction sales.*—Crown lands, not exceeding 200,000 acres in the aggregate for the whole Colony in any one year, may be sold by auction. The upset price for such land is notified by the Minister, and is fixed by law at not less than £8 per acre for town lands, £2 10s. per acre for suburban lands, and £1 per acre for other lands. A deposit equal to 25 per cent. of the purchase-money is required, and the balance must be paid within three months after the date of sale.

Sales by auction

Land Board fixes price.

*Purchases on gold-fields.*—On gold-fields any person in duly authorized occupation under the Mining Act may purchase the portion so occupied, without competition, in virtue of the improvements made on the land, and at a price to be fixed by the Land Board, being not less than at the rate of £8 per acre for town lands, and £2 10s. for suburban or other lands, or £2 10s. for any area less than one acre; but the minimum area which may be so purchased is fixed at one quarter of an acre for town lands, and one acre for suburban and other lands.

*Special sales,* without competition, in the case of rescission of water frontages, reclamation of land by proprietors of adjoining lands, and in other special cases, may also be made under conditions which are at the discretion of the Minister for Lands in the metropolitan district, and of the Local Land Boards in the other districts.

*Special leases.*—The Act contains also additional clauses for special leases, in areas situated within the boundaries of gold-fields, and on the shores of the sea, lakes, harbours or rivers, as well as for cutting and removing timber from Crown lands.

### LAND REVENUE.

Revenue from Crown Lands.

A statement of the revenue derived from the public estate during previous years will be found in a subsequent part of this volume. During 1886, the gross revenue received amounted to £1,604,235. Of this sum £515,284 was derived from sales, both conditionally and otherwise, the details under each head being:—

No. 90.—Area and amount received for lands sold during 1886.

| Description. | Area sold. | | | Amount received. |
|---|---|---|---|---|
| | a. | r. | p. | £ |
| Sold at auction ........................................ | 60,352 | 2 | 27 | 103,705 |
| Improved lots sold to owners of improvements | 227,573 | 3 | 32 | 296,250 |
| Reclaimed lands sold at appraised price ...... | 2 | 3 | 11½ | 841 |
| Proceeds of sales of unnecessary roads ......... | 61 | 3 | 21 | 172 |
| Special sales without compensation ............ | 37 | 3 | 2 | 113 |
| Rescission of reservation from water frontage | 9 | 0 | 37 | 1,311 |
| Sold conditionally ...... .... ........................ | *954,560 | 0 | 27 | 112,892 |
| Total | 1,242,598 | 1 | 37½ | 515,284 |

* Area applied for. Area confirmed 688,299 acres

In addition to these sums there were also received :

| | |
|---|---|
| Balances on conditional purchases ... | £588,666 |
| Interest ,, ,, ... | 129,978 |

which, with the amount stated above, bring the total receipts, from all sources for the sale of land, to £1,233,928.

Annual revenue.

The annual land revenue derived from pastoral occupation was £304,344, distributed as under :—

No. 91.—Area of land under pastoral occupation, with rent paid, during 1886.

| No. | Description. | Area. | Rent on assessment received. |
|---|---|---|---|
| | | Acres. | £ |
| 19 | Pastoral leases not converted under Act 1884 | 326,400 | 560 |
| 1,450 | Occupation licenses | 64,525,440 | 102,140 |
| 1,589 | Pastoral leases | 68,023,680 | 136,482 |
| 5,547 | Annual leases | 3,820,800 | 15,933 |
| 233 | Homestead leases | 2,275,840 | 15,172 |
| 5,280 | Conditional leases | 3,955,200 | 34,057 |
| | Total | 142,927,360 | 304,344 |

Amount received for Pastoral Leases.

The amount received from pastoral leases during 1886 in no sense represents the annual value of the public estate. So radical a change was made by the Act of 1884, that it was found impossible, until the new system had been for nearly two years in operation, to finally determine the rentals of the pastoral holdings. Thus rents were paid under the old scale, and, at the close of 1886, a sum of nearly £600,000 was due to the State, being the difference between the old rentals and the new ones for the period the Act had been in force. The sum of £304,344, which is given in the above table, represents only a part of the rent actually earned by the leased lands of the State.

Revenue from other sources.

In addition to the revenue derived from sales and pastoral occupation, a sum of £32,123 was received from mining leases, miners' rights, mineral leases, and escort fees; and, under the head of miscellaneous receipts, such as licenses to cut timber, fees on deeds, transfers, fines, &c., a further sum of £33,840 was obtained, making the gross total from all sources £1,604,235. This sum does not, however, represent the whole value of the proceeds from sales and occupation. On conditional purchases a deposit only of 10 per cent. is required, while on auction purchases 25 per cent. is paid immediately. The balance under these heads during the year amounted to £1,052,962; so that the gross transactions of the Lands Department for 1886 may be thus summarised:—

Gross transactions during 1886.

No. 92.—Transactions of Lands Department during 1886.

| Transactions. | Amount. |
|---|---|
| | £ |
| Revenue received under Acts of 1861 and 1864 | 1,233,928 |
| ,, Occupation Act of 1861 and Crown Lands Act of 1884 | 304,344 |
| ,, Gold-fields Act | 32,123 |
| ,, Miscellaneous | 33,840 |
| Total revenue received | 1,604,235 |
| Balance due on conditional purchases made during the year | 1,016,032 |
| ,, auction sales made during the year | 36,930 |
| Total value of transactions during 1886 | 2,657,197 |

Revenue received since 1861.

Since the year 1862, when the Lands Alienation Act of 1861 came into force, there has been received into the National Treasury from the proceeds of lands alienated the following sums:—

| Description. | Amount received. |
|---|---|
| | £ |
| Lands sold in fee simple, from 1st January, 1862, to 31st December, 1886 | 14,768,797 |
| Deposits, interest, and balance of purchase money on lands sold conditionally from 1st January, 1862, to 31st December, 1886 | 11,581,095 |
| Total amount paid into the National Treasury | 26,349,892 |

At the close of 1886, there remained due to the State, on account of unpaid balances on land conditionally purchased, a sum of £12,000,000; so that the total amount of sales from 1862 to the end of 1886 was over £38,000,000 in all. During the same period the area of land disposed of was 34,000,000 acres; the average rate per acre for lands of allkinds sold was, therefore, £1 2s. 6d.

Amount due to the State.

It will be seen from the figures given above that, out of a total area of land estimated at 195,882,150 acres, 184,607,508 acres are either leased or alienated, leaving a balance of only 11,274,642 acres, representing the area of country not suitable for settlement, and the land reserved alike from sale or lease, or dedicated for some public purpose.

### *HOLDINGS.*

*Holdings over one acre.*—Excluding land held by the tenants of the Crown, there were on the 31st March last 44,932 holdings of more than one acre in extent. Ten years previously these holdings numbered 39,639. The increase amounted to 13·5 per cent., while the area comprised in the holdings advanced from 18,210,796 to 36,726,169 acres, or 101 per cent.

There has been a very marked tendency to increase the area of individual holdings during the past ten years, and this tendency is visible during the whole period over which the records extend, as may be seen from the accompanying table.

Increase in area of holdings.

No. 93.—Average area of Holdings :—

| Year ending 31st March. | Average size of holding. | Year ending 31st March. | Average size of holding. |
|---|---|---|---|
| | Acres. | | Acres. |
| 1876 | 315 | 1882 | 703 |
| 1877 | 459 | 1883 | 772 |
| 1878 | 481 | 1884 | 817 |
| 1879 | 564 | 1885 | 813 |
| 1880 | 669 | 1886 | 862 |
| 1881 | 691 | 1887 | 817 |

Facilities afforded by Act of 1861.

The increase shown between the first and last years of the above series amounted to 502 acres in the average extent of holdings, which are now 160 per cent. larger than they were in 1876. This result is, in a certain measure, due to the facilities afforded by the improvement clause of the Crown Lands Act of 1861, and its subsequent amendments, permitting, as they did, the purchase at the rate of £1, and subsequently at £1 5s., per acre, in sections from 40 acres to 640 acres, of areas which pastoral occupiers had improved to the extent of £1 per acre. But the result is attributable also, and in a large degree, to the vast areas of Crown lands offered for sale at public auction, which almost invariably fell into the hands of the Crown tenants on whose runs they were situated Up to the close of 1882, when a check was first given to this form of alienation, there had been disposed of by public auction 10,995,120 acres, whilst the area acquired under the improvement clause amounted to 2,305,938 acres. At the date above-mentioned, a total area of 35,478,346 acres had been alienated throughout New South Wales, of which 29,113,246 acres were sold subsequently to the Act of 1861, and of this area 13,301,058 acres, or a little more than 45 per cent., were parted with under the auction sales and improvements clauses, in the proportion of nearly five acres sold at auction to one brought under the improved purchase clause.

Comparative size of holdings in the various electorates.

The next table shows the average area of holdings in various electorates, and it will be seen that in the Riverina district the average sizes of holdings reach the largest figures, being 7,840 acres in the electorate of Balranald, 6,545 acres in that of the Murray, 3,030 acres in the Murrumbidgee, and 2,058 acres in the Hume electorate, or a mean of 4,859 acres in the whole district. The electorates of Gunnedah and Bourke closely follow, with the respective average of 3,397 acres and 3,252 acres.

In the semi-pastoral and semi-agricultural districts of the central division of the Colony, the average size of the holdings is much smaller, Grenfell, Monaro, and Queanbeyan averaging 1,520 acres, Small area of holdings in early settled districts.

1,057 acres, and 1,066 acres respectively. In the eastern division, and in that part of the Colony which was first settled, comprising the valleys of the Hawkesbury, Nepean, Hunter, and Shoalhaven Rivers, and the country around Goulburn and Bathurst, the area of holdings becomes further reduced, and, immediately around the centres of population, the average becomes still smaller. Thus in the electorates of Argyle East and West Macquarie, Orange, Patrick's Plains, and the Richmond and Eden, the averages lie between 735 acres and 293 acres, while, in those of Kiama, Hawkesbury, Central Cumberland, and Goulburn, they fall to between 112 and 31 acres.

No. 94.—Average Area of Holdings in the various Electoral Districts of the Colony, in the years 1886–87 :—

| Electoral Districts. | Acres. | Electoral Districts. | Acres. |
|---|---|---|---|
| Albury | 554 | Kiama | 112 |
| Argyle | 675 | Macleay | 139 |
| Balranald | 7,840 | Macquarie East | 354 |
| Bogan | 1,427 | ,, West | 426 |
| Burrowa | 824 | Maitland East | 145 |
| Bourke | 3,252 | Molong | 602 |
| Braidwood | 443 | Monaro | 1,057 |
| Camden | 245 | Morpeth | 115 |
| Carcoar | 621 | Mudgee | 344 |
| Clarence | 115 | The Murray | 6,545 |
| Central Cumberland | 69 | The Murrumbidgee | 3,030 |
| Durham | 384 | The Namoi | 1,761 |
| Eden | 423 | The Nepean | 164 |
| Forbes | 967 | Newcastle | 131 |
| Glen Innes | 613 | New England | 835 |
| Gloucester | 1,022 | Northumberland | 194 |
| Goulburn | 31 | Orange | 322 |
| Grafton | 175 | Patrick's Plains | 735 |
| Grenfell | 1,520 | Queanbeyan | 1,066 |
| Gundagai | 1,161 | The Richmond | 293 |
| Gunnedah | 3,397 | Shoalhaven | 194 |
| Gwydir | 2,157 | Tamworth | 988 |
| Hartley | 278 | Tenterfield | 256 |
| Hastings and Manning | 514 | Tumut | 435 |
| Hawkesbury | 104 | Wellington | 517 |
| Hume | 2,058 | Wentworth | 1,364 |
| Hunter | 202 | Wollombi | 199 |
| ,, Upper | 1,238 | Yass Plains | 785 |
| Illawarra | 129 | Young | 910 |
| Inverell | 836 | | |

Comparative increase of holdings.

Comparing the number of existing holdings of various sizes with those of the year 1878, when the particulars were first recorded, it will be found that those under 15 acres have increased 39 per cent. ; those from 15 to 200 acres have advanced very slightly, the increase being only 4 per cent. Between 200 and 400 acres, the number of holdings also shows a very small increase ; those from 400 to 1,000 acres increased 48 per cent. ; from 1,000 to 2,000 acres, the increase was 68 per cent. ; from 2,000 to 10,000 acres, it was 64 per cent. ; while in the largest class of holdings, from 10,000 acres upwards, the increase in number has been nearly 86 per cent. during that period of eight years.

The subjoined table shows the number of holdings in various classes in each year of the period named :—

No. 95.—Holdings of Various Sizes.

| Acreage. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|
| Under 15 acres.. | 4,676 | 4,974 | 5,550 | 5,186 | 5,124 | 5,154 | 5,409 | 5,877 | 6,512 |
| 15 to 200 ...... | 20,360 | 21,302 | 20,645 | 20,361 | 20,007 | 20,161 | 20,998 | 21,174 | 21,288 |
| 200 to 400 ...... | 5,913 | 6,199 | 5,854 | 5,753 | 5,760 | 5,969 | 6,363 | 6,285 | 6,382 |
| 400 to 1,000 .... | 4,598 | 4,964 | 4,733 | 4,959 | 5,559 | 6,031 | 6,497 | 6,617 | 6,792 |
| 1,000 to 2,000 .. | 1,159 | 1,212 | 1,467 | 1,470 | 1,540 | 1,667 | 1,886 | 1,811 | 1,948 |
| 2,000 to 10,000.. | 884 | 940 | 1,229 | 1,176 | 1,297 | 1,350 | 1,413 | 1,406 | 1,458 |
| 10,000 and upwards ........ | 297 | 327 | 414 | 449 | 463 | 461 | 513 | 563 | 552 |

Holdings in vicinity of towns.

The holdings under 15 acres in extent are, generally speaking, in the vicinity of towns, and consist mainly of gardens or orchards, and the increase of 28 per cent. is what would naturally be expected from the increased demand for their produce by a large population. The least satisfactory feature in the table is the stationariness of the number of holdings of moderate size. In 1878, the total holdings having an area from 15 to 400 acres, amounted to 26,273 ; in the following year, they were 27,501 ; and in 1886-7, only 27,670. On the other hand, the larger holdings have increased to a remarkable degree, so that, at the close of the year 1886, there were 10,750 holdings of more than 400 acres in extent, compared with 6,938 in 1878, or an increase of 55 per cent. in number in that short period. The figures relative to the number and extent of holdings over 10,000 acres in area are still more remarkable, as they show that at the end of 1886 there were 552 holdings of more than 10,000 acres each, comprising together 21,104,498 acres, 18,307,635 acres of which were freehold, and 2,796,863 acres held under lease from private persons. This large extent of territory forms about six-tenths of the occupied lands, exclusive of what is held under lease by the tenants of the Crown, and represents more than half the entire alienated lands of the Colony. This enormous area is in the hands of only 552 persons. It has not been found possible to determine the number of holdings exclusively upon lease for the present year, nor their average extent; but an inspection of the returns is sufficient to show that the bulk of the leaseholders occupy farms of less than 200 acres.

**Total area in cultivation.**

In the year 1876, the total area of land under cultivation amounted to 451,138 acres, or less than three quarters of an acre per head. On the 31st March, 1887, that is in eleven years, the area under cultivation had risen to 977,664 acres, equivalent to nearly one acre per head of the population of the year. This is not a large increase certainly, considering the enormous alienation of land which has occurred in the interval and the progress made by some of the neighbouring colonies, still it amounts to 33 per cent., and taken in conjunction with the increase in production which will hereafter be indicated, it seems to show that the Colony is advancing towards independence in the matter of food production.

**Enclosed land.**

The area of unenclosed land in 1876 amounted to nearly two-fifths of the whole area of the holdings; but, in the beginning of 1887, the proportion had fallen to considerably less than one-tenth, the area unenclosed at that period being only 3,397,286 acres out of a total of 36,726,169 acres occupied. This result is due partly to the operation of legislation, and partly to the saving of labour which fencing enables occupiers to effect.

## *SOIL AND AGRICULTURE.*

Soils adapted for the produce of many climes.

There is found in the Colony of New South Wales so great a variety of soils and climate that almost any kind of crops, whether specially the produce of temperate, and even cold climates, or those of sub-tropical regions, may be grown. The nature of the soil varies greatly, according to the geological formation in different parts of the Colony; but, except in the inaccessible or rugged portions of the mountain chains, and in the more arid portion of the north-western districts, the soil is almost everywhere susceptible of cultivation. The area absolutely unfit for occupation of any sort has been roughly estimated at less than 5,000,000 acres, and it may be said that the greater part of the area adapted for settlement is also in some form or another capable of being cultivated. The question, however, of the success of agricultural operations in New South Wales is altogether independent of the mere fitness of the soil for cultivation. So far experience has shown that the circumstances of an irregular rainfall and a want of uniformity in the seasons, which are the chief characteristics of the climate of a large part of the interior district, form a great drawback to the success of agricultural settlements. Hitherto, however, the principal industry of the Colony connected with its soil has been its occupation for grazing, and the pastoral interest has absorbed the energy of the colonists to so great an extent that agricultural pursuits have been to no slight degree neglected. Such neglect must necessarily be corrected in time, and there is every indication that the question will soon receive ample attention.

Rich soil of coastal valleys.

The portion of the valleys of the coastal rivers adapted for agriculture, owing to the confined nature of their basins, is limited, but nowhere could there be found richer soil than along the lower reaches of these rivers. The brush lands of the Tweed, Richmond, Clarence, Macleay, and Manning are proverbial for the richness of their soil, and the sandy alluvial formations of the Hunter and the Hawkesbury valleys have been cultivated for nearly a hundred years without rest, being enriched periodically by fluvial inundations.

The valleys of the southern rivers of the coast district are not less rich, and along the banks of the Shoalhaven, Clyde, Tuross, and other streams are found unmistakable evidence of thriving industry.

The variety of climate experienced in a region extending through eight degrees of latitude, from 29 degrees to 37 degrees south, of necessity causes a corresponding variety in the kinds of produce which may be successfully grown.

Localities where principal crops are grown.

Maize is grown in almost every part of the coast region, along the river valleys, especially north of Sydney, and yields an abundant return. Sugar-cane is cultivated only on the northern rivers, very little being raised southward of the Macleay. Wheat is grown in the Hunter valley to some extent, but not in the country farther north. In the southern district, although the little wheat raised shows a comparatively high return, the extent of land cropped is too small to enable a reliable inference to be drawn as to the true capabilities of this rich district.

The soil and climate of the northern coast are particularly favourable to the growth of semi-tropical products, especially coffee and tobacco, and in the Hunter valley the vine finds a natural home.

Soil suitable for fruit-trees.

The soil of the coastal region is almost everywhere suitable to the growth of fruit-trees, both semi-tropical and European. Oranges, lemons, shaddocks, and other varieties of this class, thrive well on all parts of the north coast, and nowhere better than in the Wianamatta formations about Parramatta, and in the valleys of the Hawkesbury, Nepean, and Parramatta Rivers. The cultivation of these fruits, as well as that of grapes for the table, peaches, apricots, and other varieties of European fruit, is indeed the principal industry of the agriculturists in the vicinity of the metropolis, and in many places where the soil is not adapted to the growth of cereals, fruit-trees succeed well, and handsomely repay the cost of cultivation.

**Suitability of table-land for European cereals.**

On the high plateau of the Great Dividing Range, a variety of soil is also met with, and there is much rich agricultural country, especially suited for the cultivation of wheat, barley, oats, and other agricultural products of cold and temperate regions, and notwithstanding the drawbacks in the shape of uncertain seasons and variable rainfall, the results obtained by the cultivation of cereal crops in the rich soils of the Monaro, Tumut, Bathurst, Wellington, Mudgee, and New England districts, on the mountain plateaux, are certainly encouraging.

**Alluvial deposits.**

In the western division of the Colony the alluvial deposits extending along the course of the great rivers which carry the drainage of the larger portion of the Colony of New South Wales to the waters of the Murray, have formed a soil the quality of which is excellent, and the cereals which form the more considerable items in the alimentation of mankind might be grown in immense quantities were the rainfall more abundant and regular. Attempts have been made on small patches of country here and there to test the agricultural qualities of the soil, with the result that in years of abundant and regular rains the crops have been magnificent, but in time of drought the returns have been equally unfavourable. It may be confidently asserted with regard to this part of the Colony, that wherever it may become practicable to conserve water, or to establish an intelligent system of irrigation, the soil will repay with a bountiful harvest the labours of the agriculturist. Over what area systematic irrigation may be carried on has not yet been ascertained, though possibly this may not prove to be very considerable, owing to the comparatively small volume of the rivers whence the water must be obtained, and the irregularity of their flow.

### *CULTIVATION.—PRINCIPAL CROPS.*

The principal crops grown in the Colony are wheat, maize, oats, barley, potatoes, sugar-cane, tobacco, grapes, oranges, and other fruits.

Quantities and value of produce.

The quantities produced in the year ended 31st March, 1887, and the value of each crop respectively are as follows :—

| | Produce. | Value. |
|---|---|---|
| Cereal crops :— | Bushels. | £ |
| Wheat | 5,868,844 | 953,688 |
| Maize | 3,825,146 | 525,958 |
| Barley | 132,949 | 18,836 |
| Oats | 600,892 | 52,578 |
| Other grain | 22,907 | 17,151 |
| Hay :— | Tons. | |
| Wheat | 109,851 | 357,016 |
| Oats | 182,921 | 777,414 |
| Barley | 4,388 | 14,261 |
| Lucerne and grass | 52,738 | 131,845 |
| Green food for cattle | ............ | 84,200 |
| Potatoes | 45,803 | 103,057 |
| Sugar-cane | 167,959 | 98,676 |
| | Cwt. | |
| Tobacco | 13,642 | 51,157 |
| | Gals. | |
| Grapes for wine and brandy | 602,660 | 120,761 |
| | Tons. | |
| „ table use | 1,945 | 45,221 |
| | Doz. | |
| Oranges | 6,376,868 | 66,426 |
| Other fruit and garden produce | ............ | 372,100 |
| Minor crops | ............ | 153,300 |
| Total value of produce | ............ | 3,943,645 |

**Note: The values given are those at the places where the produce was grown.**

## *WHEAT.*

Principal centres of cultivation

In the early days of settlement, the Hawkesbury River Valley and the country adjacent to the towns of Parramatta, Liverpool, Penrith, Camden, and Maitland were the centres of considerable wheat growing. Unskilful farming, and the consequent exhaustion of the soil, with the attendant evils of rust, smut, and other diseases, however, caused these districts to be abandoned little by little as wheat country, and on the discovery of the Bathurst Plains, their importance at once ceased.

The districts of Bathurst, Goulburn, Gundagai, Tumut, Young, Monaro, and New England were each in turn occupied by agriculturists, and the suitability of their soil and climate, as well as that of the whole of the mountain plateau, for the growth of this cereal became definitely established.

Cultivation very irregular.

The cultivation of this grain during the past thirty years has, however, been very irregular. For some years prior to 1867, the area of land under crop remained almost the same from year to year, being little more than 125,000 acres. In 1867, however, the wheat area had increased to 175,000 acres, and at that acreage it remained practically unaltered for twelve years. Then, again, more land was laid under wheat, and in 1878–9 the area had increased to 233,252 acres. Since then the area of land under this cereal has been greatly extended, and during the year 1886–7 there were reaped 337,730 acres, an area larger than in any previous years. Moreover, under the favourable circumstances of temperature and rainfall, the highest average return obtained in the Colony during the last twenty-six years, viz., 17·37 bushels per acre, was during 1886–7. The average yield during the whole of the period, which extends from the date of the passing of the first Crown Lands Act to the season which ended on 31st March, 1887, was 13·23 bushels, the lowest

Average yield.

yield being 6·75 bushels, obtained in the season 1870–71, and the most bountiful, 17·37 bushels per acre, gathered during the last season. During the first ten years of the period named, from 1861 to 1870, the yield per acre appears to have been comparatively a small one, having averaged only 10·70 bushels. Thence followed a period of fair seasons, extending over fourteen years, when the average fluctuated between a minimum of 12·87 bushels obtained in the season of 1874–5, and a maximum of 16·43 in the season 1876–77, averaging 14·94 bushels per acre for the whole period.

Seasons of 1885-6 and 1886-7.

The season of 1885-6 was a bad one for wheat cultivation, the average produce only reaching 10·45 bushels per acre; but that of 1886-7 was in all respects exceptionally good, and the prospects for the coming year are also of a very encouraging nature.

The considerable volume of rain which fell throughout the Colony during the latter part of the year 1886 and the course of the present year, has had the effect of completely soaking the soil, and of permitting agricultural operations to be carried on over large areas, which the dry state of the ground in former years rendered unfit for the plough. It may therefore be anticipated that the coming season will exhibit a considerable increase in the value of the agricultural produce throughout the Colony.

Influence of rainfall.

The influence of the rainfall, however, can hardly be shown by means of figures. There are too many considerations affecting the value of rain to admit of this being done. The period of the year at which rain falls, the quantity falling at any one time, and the evaporation, are all elements of importance, as well as the total rainfall.

The following statement shows the state of wheat cultivation since the year 1862.

No. 96.—Area of Land under Wheat—total Yield per Acre for 1862–87 :—

| Year ended 31st March. | Area of crop. | Bushels. | Yield per acre. |
|---|---|---|---|
| 1862 | 123,468 | 1,606,034 | 13·01 |
| 1863 | 108,136 | 1,054,954 | 9·75 |
| 1864 | 103,942 | 808,919 | 7·78 |
| 1865 | 104,568 | 1,246,458 | 11·92 |
| 1866 | 131,658 | 1,013,863 | 7·69 |
| 1867 | 175,033 | 2,226,027 | 12·72 |
| 1868 | 149,142 | 1,433,807 | 9·61 |
| 1869 | 164,206 | 1,787,085 | 10·88 |
| 1870 | 189,452 | 3,200,959 | 16·89 |
| 1871 | 147,997 | 999,595 | 6·75 |
| 1872 | 154,030 | 2,229,642 | 14·48 |
| 1873 | 177,551 | 2,898,463 | 16·32 |
| 1874 | 169,330 | 2,273,620 | 13·43 |
| 1875 | 166,911 | 2,148,394 | 12·87 |
| 1876 | 133,609 | 1,958,640 | 14·66 |
| 1877 | 145,608 | 2,391,979 | 16·43 |
| 1878 | 176,686 | 2,455,507 | 13·84 |
| 1879 | 233,252 | 3,439,326 | 14·74 |
| 1880 | 233,368 | 3,613,266 | 15·48 |
| 1881 | 253,137 | 3,717,355 | 14·69 |
| 1882 | 221,887 | 3,405,966 | 15·35 |
| 1883 | 247,361 | 4,042,395 | 16·35 |
| 1884 | 289,757 | 4,345,437 | 15·00 |
| 1885 | 275,225 | 4,271,304 | 15·52 |
| 1886 | 264,867 | 2,733,133 | 10·45 |
| 1887 | 337,730 | 5,868,844 | 17·37 |
| Average yield for twenty-six years …………………… | | | 13·23 |

Average yield for twenty-five years.

Dividing the quarter century ending with March, 1887 into quinquennial periods, the yearly averages were :—

| Period. | Average yield per acre. |
|---|---|
| 1863–1867 | 10·19 bushels. |
| 1868–1872 | 11·19 ,, |
| 1873–1877 | 14·72 ,, |
| 1878–1882 | 14·87 ,, |
| 1883–1887 | 15·03 ,, |

The better yield of the latter period is partly due to improved farming; but, at the same time, it must not be lost sight of that the occurrence of rust, smut, and other forms of disease in wheat has been less frequent and less general of recent years than formerly.

**Various districts compared.**

Grouped according to the proportion of land under wheat during 1886–7 to the total area, the districts stand as follows:—

No. 97.—Proportion of Land under Wheat in chief Districts compared with total Area.

| District. | Proportion of land under wheat to whole area of district. |
|---|---|
| | Acres. |
| Young | 1 in 45 |
| Gundagai | 50 |
| Orange, Molong, and Carcoar | 55 |
| Bathurst | 57 |
| Yass and Burrowa | 143 |
| Murray Valley | 148 |
| Tamworth | 148 |
| Mudgee | 178 |
| Goulburn | 212 |
| Murrumbidgee | 411 |
| Wellington and Bogan | 520 |
| Tumut | 533 |
| Monaro | 574 |
| Hunter Valley | 593 |
| New England | 648 |
| Glen Innes, Inverell, and Tenterfield | 718 |
| Forbes and Grenfell | 873 |
| Gunnedah | 3,131 |

Yield of wheat per acre in different districts.

The quantity of land under wheat in the remaining districts of the Colony is so small as not to be worth taking into consideration, and is therefore neglected in the ensuing comparisons. Owing to the alteration of the boundaries of the electoral districts in 1881, comparison by electorates is not possible beyond that year. Taking, therefore, the six years which have since elapsed, the average yield per acre in each district was:—

No. 98.—Wheat.—Average Yield per Acre in principal Districts since 1881.

| Districts. | 1881-2. | 1882-3. | 1883-4. | 1884-5. | 1885-6. | 1886-7. | Average |
|---|---|---|---|---|---|---|---|
| Goulburn | 15·6 | 17·3 | 13·3 | 17·1 | 9·5 | 18·9 | **15·3** |
| Yass | 15·2 | 17·5 | 14·2 | 17·0 | 11·1 | 17·7 | **15·4** |
| Wellington and The Bogan. | 13·5 | 16·2 | 14·1 | 17·2 | 6·4 | 16·2 | **13·9** |
| Monaro | 16·4 | 16·6 | 14·9 | 16·6 | 11·4 | 17·0 | **15·5** |
| Murray Valley | 10·8 | 12·3 | 13·6 | 9·6 | 12·1 | 14·4 | **12·2** |
| Orange | 17·3 | 17·9 | 16·7 | 15·7 | 9·9 | 18·3 | **15·9** |
| Gundagai | 18·2 | 18·2 | 15·8 | 18·4 | 11·4 | 20·2 | **17·0** |
| Forbes | 16·5 | 11·3 | 15·1 | 13·4 | 7·9 | 20·5 | **14·1** |
| Murrumbidgee | 14·1 | 14·5 | 14·4 | 14·4 | 8·0 | 19·9 | **14·2** |
| Tamworth | 17·3 | 16·6 | 16·0 | 16·3 | 10·1 | 14·7 | **15·2** |
| New England | 19·2 | 21·1 | 19·3 | 20·1 | 15·4 | 17·1 | **18·7** |
| Namoi and Gwydir Valleys | 18·4 | 22·7 | 15·7 | 15·9 | 8·7 | 13·9 | **15·9** |
| North Coast | 16·3 | 21·0 | 22·2 | 18·2 | 16·6 | 13·9 | **18·0** |
| Glen Innes | 19·5 | 20·8 | 19·6 | 20·5 | 19·2 | 13·8 | **18·9** |
| Young | 17·1 | 16·7 | 13·4 | 17·5 | 9·9 | 19·2 | **15·6** |
| Hunter River Valley | 14·8 | 8·0 | 15·4 | 15·6 | 8·4 | 16·8 | **13·2** |
| Bathurst | 14·5 | 15·3 | 11·9 | 14·8 | 8·2 | 16·4 | **13·5** |
| Mudgee | 14·2 | 21·9 | 14·1 | 18·1 | 6·3 | 19·0 | **15·6** |
| Tumut | 20·5 | 20·5 | 19·0 | 23·6 | 14·2 | 20·0 | **19·6** |
| South Coast | 20·7 | 20·5 | 22·6 | 23·0 | 17·1 | 14·6 | **19·7** |
| Hawkesbury and Nepean Valleys | 13·6 | 13·3 | 13·9 | 13·2 | 12·8 | 16·3 | **13·9** |
| Western District | 10·6 | 7·4 | 10·8 | 9·4 | 5·5 | 12·6 | **9·4** |
| Average for whole Colony | 15·3 | 16·3 | 14·9 | 15·5 | 10·4 | 17·3 | 15·3 |

Average yield of districts compared.

Tumut, Glen Innes, and New England have given the largest, as well as the most consistent yield during the whole period. This is what might have been anticipated. The situation of these districts on the high plateau of the main range dividing the coastal region of the Colony from the Great Western Plains, places them under conditions as to soil, climate, and rainfall similar to those which obtain in the richest wheat-growing countries of Europe and America.

Gundagai, Orange, Gunnedah, Mudgee, Monaro, and Young follow next, in the order named, as regards yield per acre, which in each case may be considered as fairly good. Yass, Goulburn, and Tamworth also yield a fair average crop.

The scale sensibly decreases in the other districts of the Colony which, with the exception of Bathurst and the Hunter valley, are situated on the confines of the lower slope of the main range, and the great plains of the interior.

Decrease in yield as descent is made to plains.

It may be stated as a general law that those districts situated on the higher table-lands of the main Dividing Range are the best adapted to the cultivation of wheat, and that the average yield decreases in an almost constant ratio as a descent is made towards the plains, where the average falls as low as it does in similar formations in South Australia and Victoria. The Bathurst district is the only exception to this general rule, but as it is the place where the greater quantity of wheat is grown as compared with the total area, the reason of its small average annual yield must be sought apart from the circumstances of its geographical situation. It may be that the constant succession of crops has injured the productiveness of the soil, and brought about a decreased yield in the district where the practice has been most general. It will be observed that the yield for the season 1885-6 was less per acre than that of any other year since 1871. The reason of such falling off cannot be readily discovered from the records of rainfall, but that season was the close of a series wherein the rainfall was restricted, and its failure may be due, to some extent, to the deficiency of the rain of previous years.

Copiousness of last crop.

The last season, 1886-7, on the other hand, exhibits throughout most of the districts a considerable improvement, both in acreage under wheat and the average per acre. Two causes have combined to make the production of this season larger than the average of previous years, the bad prospects of stock and station produce during the winter of the previous year, in some districts adapted to the growth of grain, and the occurrence of seasonable rains in most parts of the Colony. Owing to the former cause, much additional land was placed under crop in certain districts hitherto given to grazing, as the prospects of farming seemed brighter than those of stock raising, and through the latter cause the average sensibly increased.

Rainfall in wheat centres.

The average rainfall on some of the most important wheat-growing centres during the year 1886, was—

| District. | Rainfall in 1886. |
|---|---|
| Goulburn | 26·9 inches. |
| Yass | 27·5 „ |
| Wellington | 30·9 „ |
| Monaro | 27·7 „ |
| Murray | 19·3 „ |
| Orange and Carcoar | 33·3 „ |
| Gundagai | 26·3 „ |
| Forbes | 23·7 „ |
| Murrumbidgee | 16·3 „ |
| Tamworth | 29·8 „ |
| New England | 33·1 „ |
| Bathurst | 30·7 „ |
| Mudgee | 31·1 „ |
| Glen Innes | 39·9 „ |
| Young | 29·9 „ |
| Hunter Valley | 25·4 „ |

Average yield of New South Wales compared with that of other Australian colonies.

If the average production of wheat per acre in New South Wales be compared with that of the other colonies of the Australasian group, it will be found that this Colony occupies a very good place. Our average is greater than that of any other portion of continental Australia, although somewhat less than the Tasmanian yield, and considerably below that of New Zealand. The following table shows the average produce of each Australasian Colony since 1873.

No. 99.—Average Produce of Wheat per Acre in the various Australasian Colonies for the years ended 31st March, 1873-87, respectively :—

| | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. | 1887. | Mean. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| New South Wales.. | 16·32 | 13·43 | 18·87 | 14·66 | 16·43 | 13·84 | 14·74 | 15·48 | 14·69 | 15·35 | 16·35 | 15·00 | 15·52 | 10·45 | 17·37 | 14·81 |
| Victoria ............ | 16·51 | 13·58 | 14·57 | 15·49 | 13·15 | 12.41 | 8·76 | 13·29 | 9·95 | 9.40 | 9·03 | 14·10 | 9·52 | 8·99 | 11·49 | 12·02 |
| South Australia ... | 11·50 | 7·87 | 11·75 | 11·95 | 5·40 | 7·76 | 7·15 | 9·78 | 9·96 | 4·57 | 4·21 | 7·94 | 7·53 | 7·53 | 7·53 | 8·16 |
| Queensland ......... | ... | ... | ... | ... | ... | 10·63 | 13·56 | 8·11 | 20·40 | 8·41 | 13·89 | 4·34 | 16·17 | 5·11 | 3·12 | 10·37 |
| W. Australia ...... | 6·02 | 13·44 | 12·00 | 11·00 | 12·00 | 11·00 | 9·97 | 14·94 | 14·94 | 7·00 | 11·00 | 13·00 | 13·00 | 11·50 | 12·25 | 11·54 |
| Tasmania............ | 18·62 | 16·17 | 18·51 | 16 38 | 19·30 | 18·12 | 16·10 | 23·22 | 14·99 | 18·88 | 20·27 | 17·74 | 19·30 | 17·32 | 17·91 | 18·19 |
| New Zealand........ | 24·19 | 25·61 | 28·15 | 31·54 | 28·63 | 26·30 | 22·94 | 28·16 | 25·07 | 22·69 | 26·28 | 26·02 | 25·43 | 24·40 | 24·89 | 26·09 |

Comparison with other countries.

Compared with the majority of European countries, the yield of wheat must appear inconsiderable, both in regard to the total quantity obtained and the produce per acre. The return from some of the chief wheat-growing countries is given below.

No. 100.—Produce of Wheat per Acre in Wheat-growing Countries of Europe and America :—

| Countries. | Average produce of wheat per acre. |
|---|---|
| | Bushels. |
| Denmark | 31·1 |
| United Kingdom | 26·9 |
| Norway | 25·1 |
| Belgium | 22·8 |
| Holland | 21·5 |
| Manitoba | 20·3 |
| Germany | 18·8 |
| France | 16·9 |
| Austria | 16·4 |
| British Columbia | 15·0 |
| Ontario | 14·1 |
| Hungary | 13·6 |
| Italy | 12·1 |
| United States | 11·7 |
| Quebec, Nova Scotia, and New Brunswick | 9·9 |
| Russia in Europe | 4·6 |
| New South Wales (since 1873) | 14·8 |

## *CONSUMPTION AND PRODUCTION OF BREADSTUFFS.*

Production of wheat not equal to demand.

The production of wheat still remains considerably below the consumption of the Colony. The accompanying table has been prepared with a view to illustrate the state of the Colony in this respect, and shows the total consumption of wheat, the home production, and the net deficiency for twenty-five years.

No. 101.—Consumption and Production of Wheat in New South Wales, 1862–86:—

| Year. | Total consumption. | Available home production. | Net deficiency. | Consumption of wheat per head. | Home produce per head. | Deficiency. |
|---|---|---|---|---|---|---|
| | Bushels. | Bushels. | Bushels. | Bushels. | Bushels. | Bushels. |
| 1862 | 2,326,648 | 1,451,749 | 874,899 | 6·5 | 4·0 | 2·5 |
| 1863 | 1,875,188 | 919,783 | 955,405 | 5·0 | 2·4 | 2·6 |
| 1864 | 2,601,886 | 678,992 | 1,922,894 | 6·7 | 1·7 | 5·0 |
| 1865 | 2,530,160 | 1,115,741 | 1,414,419 | 6·3 | 2·8 | 3·5 |
| 1866 | 2,780,756 | 849,297 | 1,931,459 | 6·6 | 2·0 | 4·6 |
| 1867 | 3,172,134 | 2,007,236 | 1,164,898 | 7·2 | 4·6 | 2·6 |
| 1868 | 2,482,547 | 1,247,380 | 1,235,167 | 5·4 | 2·7 | 2·7 |
| 1869 | 2,940,010 | 1,681,828 | 1,258,182 | 6·2 | 3·5 | 2·7 |
| 1870 | 4,229,681 | 2,964,144 | 1,265,537 | 8·6 | 6·0 | 2·6 |
| 1871 | 2,522,056 | 814,624 | 1,707,432 | 4·9 | 1·6 | 3·3 |
| 1872 | 3,236,524 | 2,037,105 | 1,199,419 | 6·1 | 3·8 | 2·3 |
| 1873 | 4,061,054 | 2,676,525 | 1,384,529 | 7·4 | 4·9 | 2·5 |
| 1874 | 3,429,879 | 2,061,598 | 1,368,281 | 6·0 | 3·6 | 2·4 |
| 1875 | 3,831,220 | 1,939,756 | 1,891,464 | 6·5 | 3·3 | 3·2 |
| 1876 | 3,684,332 | 1,791,629 | 1,892,703 | 6·0 | 2·9 | 3·1 |
| 1877 | 3,699,965 | 2,209,969 | 1,489,996 | 5·8 | 3·5 | 2·3 |
| 1878 | 4,370,538 | 2,224,650 | 2,145,888 | 6·6 | 3·3 | 3·3 |
| 1879 | 4,795,087 | 3,147,761 | 1,647,326 | 6·9 | 4·5 | 2·4 |
| 1880 | 5,226,000 | 3,321,556 | 1,904,444 | 7·1 | 4·5 | 2·6 |
| 1881 | 4,277,670 | 3,400,934 | 876,736 | 5·6 | 4·4 | 1·2 |
| 1882 | 5,382,152 | 3,136,461 | 2,245,691 | 6·7 | 3·9 | 2·8 |
| 1883 | 5,138,164 | 3,733,171 | 1,404,993 | 6·1 | 4·4 | 1·7 |
| 1884 | 5,827,360 | 3,983,246 | 1,844,114 | 6·6 | 4·5 | 2·1 |
| 1885 | 6,639,149 | 3,927,273 | 2,711,876 | 7·1 | 4·2 | 2·9 |
| 1886 | 6,077,440 | 2,402,057 | 3,675,383 | 6·5 | 2·9 | 3·6 |

Consumption in different years compared.

A false idea would probably be formed if the result of any one year were separately compared with that of any other, as it frequently happens that the transactions of one year affect the trade of the following to a very large extent. To cover irregularities of export and import, and in order to facilitate comparison, the period has been divided into series of five years. The relative state of production and consumption will be found below, the basis of comparison adopted being that of population.

No. 102.—Consumption and Production of Breadstuffs:—

| Period. | Average yearly consumption per head. | Average yearly home produce per head. | Deficiency yearly per head. |
|---|---|---|---|
| | Bushels. | Bushels. | Bushels. |
| 1862–66 | 6·2 | 2·5 | 3·7 |
| 1867–71 | 6·4 | 3·6 | 2·8 |
| 1872–76 | 6·4 | 3·7 | 2·7 |
| 1877–81 | 6·4 | 4·0 | 2·4 |
| 1882–86 | 6·6 | 4·0 | 2·6 |
| Average | 6·4 | 3·6 | 2·8 |

Average yearly production.

It will be seen that during the first period, the average yearly production was considerably less than half the consumption, the deficiency being about 60 per cent. At the close of the series the home production had largely increased, so that the deficiency was scarcely more than 38 per cent. during the last quinquennium. There has been all through the period a tendency towards closing the gap between the demand and the supply, and the results of the harvest of 1886–7 exhibit a still further advance in this direction. For the season named, the yield has been equal to 5·65 bushels per head, which, at the average rate of consumption calculated for the last quarter century, would leave a deficiency of three quarters of a bushel per head of the population. But although the yield of that season was so copious, the available quantity of wheat will not be so large as anticipated, as in a number of districts, a considerable proportion of the crop was spoilt, owing to the heavy rains which fell during and at the close of the reaping season. This seems to indicate nevertheless that the time is not far distant when the Colony, in the matter of breadstuffs, will be independent of outside contributions.

Average consumption.

The average consumption of wheat in New South Wales amounts, as above stated, to 6·4 per head; a rate which is higher than that of any country the records of which have been available for reference; the excess over that of the United Kingdom being 3·75 bushels per head. The consumption includes what is used for all purposes except that of seed, a fact which must be borne in mind, as the quantity used for the manufacture of biscuits and other articles, as well as for other than food purposes, is not inconsiderable.

Importation of breadstuffs.

The relative proportions of flour and wheat imported have changed very considerably during the twenty-five years above alluded to, as will be seen hereunder.

No. 103.—Average yearly Import of Flour and Wheat:—

| Period. | Flour in equivalent of wheat. | Wheat. |
|---|---|---|
| | Bushels. | Bushels. |
| 1862–66 | 1,066,892 | 801,765 |
| 1867–71 | 905,540 | 750,705 |
| 1872–76 | 1,012,110 | 838,388 |
| 1877–81 | 1,529,140 | 545,914 |
| 1882–86 | 2,484,645 | 613,180 |

Decline in quantity of wheat imported

These figures read by themselves seem to disclose an unsatisfactory condition of things in connection with the manufacture of flour in the Colony. In the first five years the import of flour amounted to 57 per cent. of the whole of the breadstuffs imported, while, in the last period, it had risen to 80 per cent., seemingly indicating a considerable deficiency in mill power in the Colony. But this is only a partial view of the case. A comparison between the importation of flour and the total home consumption gives an entirely different result, as will be seen from the next table. The figures in each case are the yearly averages for the different periods.

No. 104.—Comparison between amount of Flour Imported and Made in the Colony :—

| Period. | Total consumption of flour in equivalent of wheat. — Yearly average. | Flour imported for home consumption in equivalent of wheat. — Yearly average. | Flour manufactured in the Colony in equivalent of wheat. — Yearly average. | Per-centage of flour manufactured in the Colony to whole consumption. — Yearly average. |
|---|---|---|---|---|
| | Bushels. | Bushels. | Bushels. | |
| 1862–66 | 2,422,928 | 644,206 | 1,788,722 | 73·5 |
| 1867–71 | 3,399,288 | 610,429 | 2,788,859 | 83·2 |
| 1872–76 | 3,951,820 | 804,692 | 3,147,128 | 79·6 |
| 1877–81 | 4,836,028 | 1,463,399 | 3,372,629 | 69·7 |
| 1882–86 | 5,812,836 | 1,835,218 | 3,977,618 | 68·5 |

Mill-power up to consumption.

It will be seen from this table that the mill power of the Colony, or rather the manufacture of flour, has fairly kept pace with the increase in consumption, while the actual quantity of flour manufactured yearly has increased from an average of 1,778,722 bushels to 3,977,618 bushels.

The change in the character of the imports noted above, that is, the substitution of flour for grain, is attributable to a change in the markets whence the supply is drawn, Victoria, to a large extent superseding South Australia. The prominence of Victoria as an exporter of breadstuffs to this Colony dates from 1878, the excess of flour over wheat exported by that Colony being very pronounced. South Australia, whence the chief supply of this Colony was formerly drawn, and from which large quantities are still obtained, has, since the competition of Victoria became formidable to her, greatly diminished the proportion of wheat to flour, until, of late years, the quantity of South Australian wheat sent to this Colony has been comparatively insignificant.

The export of breadstuffs from New South Wales for the most part represents a re-export of foreign produce, Queensland being the chief buyer. In the year 1881, the export, which had previously been small, suddenly increased threefold. And though showing a decline during the succeeding years, it still retains respectable proportions, the average during the last five years being over 23 per cent. of the total quantity imported.

Wheat grown for hay.

Wheat is also grown in considerable quantities for hay and dry fodder for cattle, the area steadily increasing, though the produce is still short of the requirements of the country. Owing to the timely rains of last season and the prospects of an abundant supply of grass, a considerable area was allowed to come to grain, which would otherwise have been turned into hay, and an apparent decline will be noticed in the area under wheat for hay during 1886. This decrease in the area is, however, compensated for by a much larger yield, so that the season 1886–7 is exceptionally good. The whole of the wheat grown for hay in the Colony is consumed locally. The following statement shows the extent of land under wheat for hay, with the yearly produce, during eleven years.

Area of Land under Wheat for Hay, and Produce Raised, 1877–86:—

| Year ended 31st March. | Acres. | Produce in tons. | Year ended 31st March. | Acres. | Produce in tons. |
|---|---|---|---|---|---|
| 1877 | 17,115 | 21,297 | 1883 | 42,592 | 43,997 |
| 1878 | 29,640 | 29,137 | 1884 | 49,348 | 55,119 |
| 1879 | 22,888 | 31,320 | 1885 | 86,584 | 87,328 |
| 1880 | 25,281 | 32,943 | 1886 | 105,122 | 74,606 |
| 1881 | 41,137 | 44,037 | 1887 | 74,070 | 109,851 |
| 1882 | 39,428 | 42,378 | | | |

Cultivation of wheat for hay increasing.

From the foregoing figures it will be seen that the cultivation of wheat for hay is increasing at a much greater ratio than that for grain, the area so cultivated having reached in 1886–7, over four times that cultivated for the same purpose in 1887, whilst the production was over five times as great. The long series of dry years, which happily terminated last season, may in some measure account for the increased area devoted to hay, but the steady demand for hay and chaff, wheaten as well as oaten, and the large import of this produce, fully justify an extension of its cultivation.

The total area under wheat in 1886, both for grain and for hay was 411,800 acres, producing 5,868,844 bushels of grain and 109,851 tons of hay, the value of both kinds of produce being £1,310,704.

## *MAIZE.*

Principal centre of cultivation.

The cultivation of maize is almost as important as that of wheat in this Colony, and forms the staple industry in the valleys of the coastal rivers, which are peculiarly adapted, both by soil and climate, for the growth of this cereal. On the table-land also its cultivation is attended with fair results, but as the land rises in elevation so does the average produce per acre proportionately decrease. Attempts have been made to grow maize in the western division of the Colony, but success has only been met with under special conditions of natural or artificial irrigation, for the plant demands a considerable amount of moisture, and thrives better in the moist climates of the coast than anywhere else in the country.

Although the area under maize is less than half of that under wheat cultivation, the gross yield obtained is frequently as large, and in some seasons greatly exceeds that of wheat.

Distribution of production.

The following statement shows the distribution of the production of maize in the Colony during the six years which ended in March, 1887, as well as the average yield obtained in each district.

No. 105.—Maize.—Average Yield per Acre in Principal Districts since 1881.

| District. | 1881-2. | 1882-3. | 1883-4. | 1884-5. | 1885-6. | 1886-7. | Average. |
|---|---|---|---|---|---|---|---|
| | Bushels | Bushels | Bushels | Bushels | Bushels | Bushels | Bushels. |
| Tamworth and New England | 18·5 | 21·8 | 18·9 | 18·3 | 19·0 | 18·0 | 19·2 |
| The Macleay | 53·0 | 49·9 | 51·9 | 43·1 | 43·2 | 34·6 | 45·9 |
| The Hastings and Manning | 36·5 | 35·9 | 40·6 | 27·5 | 33·9 | 31·6 | 34·3 |
| The Clarence | 47·8 | 49·9 | 36·2 | 38·4 | 33·6 | 20·9 | 37·8 |
| The Richmond | 42·2 | 36·5 | 38·4 | 27·2 | 30·0 | 25·8 | 33·3 |
| Grafton | 44·6 | 32·0 | 42·2 | 28·6 | 31·3 | 18·1 | 32·8 |
| Gloucester | 29·3 | 29·1 | 33·0 | 19·1 | 29·7 | 30·6 | 28·5 |
| Glen Innes | 21·0 | 24·9 | 22·8 | 19·0 | 23·8 | 19·3 | 21·8 |
| Hunter River Valley | 33·4 | 28·0 | 33·0 | 21·7 | 29·8 | 27·4 | 28·9 |
| Mudgee | 17·3 | 17·7 | 19·7 | 17·6 | 22·8 | 20·6 | 19·3 |
| Tumut | 32·1 | 33·5 | 31·9 | 31·1 | 44·5 | 35·6 | 34·8 |
| Hawkesbury and Nepean River Valley | 33·9 | 22·9 | 34·7 | 21·7 | 33·1 | 29·6 | 29·3 |
| The South Coast | 36·7 | 34·8 | 34·0 | 31·2 | 33·5 | 22·6 | 32·1 |
| Other districts of the Colony | 18·7 | 20·7 | 15·7 | 12·1 | 15·1 | 17·9 | 16·7 |
| Average for whole Colony | 36·9 | 34·3 | 36·7 | 29·3 | 32·6 | 26·0 | 32·6 |

Coast production largest.

It will be seen that the average production is greatest in the north and south coast districts. In the Hawkesbury and Nepean and the Hunter River valleys, where cultivation extends to a greater distance from the coast, and is under altered circumstances as to rainfall, the yield is somewhat less; while in the higher part of the country the decline is very appreciable, for in the districts of Tamworth, New England and Mudgee, the average yield is only from 53 to 61 per cent. of that of the north coast.

Favourable condition of the district of Tumut.

The district of Tumut appears, however, to be an exception to the general rule, as the yield is almost as large, and even more regular than in the coast district. But the area under maize cultivation at Tumut is hardly large enough to justify any deduction being drawn from its exceptional yield. It may be, however, noted that Tumut stands at the head of the other agricultural districts of the Colony as regards its high and constantly maintained average yield of wheat and other grain crops; a circumstance attributable to the general excellence of the soil, and the fairly abundant and regular supply of rain with which the district is favoured. The relative position of the districts of the Colony where maize is principally grown is as follows:—

| Districts. | Average per acre for the period 1881–86. | Maximum average per acre for any one year. | Minimum average per acre for any one year. |
|---|---|---|---|
| | Bushels. | Bushels. | Bushels. |
| North Coast | 35·5 | 42·2 | 26·9 |
| Tumut | 34·8 | 44·5 | 31·1 |
| South Coast | 32·1 | 36·7 | 22·6 |
| Hawkesbury and Nepean | 29·3 | 34·7 | 22·9 |
| Hunter River | 28·9 | 33·4 | 21·7 |
| New England and Glen Innes | 21·6 | 24·9 | 19·0 |
| Mudgee | 19·3 | 22·8 | 17·3 |
| Tamworth | 18·7 | 21·8 | 19·0 |
| Other districts, where maize is not grown in large quantities | 16·7 | 20·7 | 12·1 |

Area under maize cultivation.

The area under maize cultivation was advanced from 57,959 acres in the year 1862 to 146,957 acres in 1886, and was therefore almost doubled in twenty-five years. Considered in the light of the general advance of settlement, particularly in those districts where this cereal may be successfully cultivated, there is nothing remarkable in the progress thus exhibited, especially as there is no lack of land in the Colony fit for maize. The losses occasioned through the disastrous floods, which occurred in the northern rivers during the latter part of the season 1886–7, considerably reduced the available yield of maize; and the season, which was otherwise very favourable, shows a smaller yield than some former years. In the year 1884, the quantity produced from a smaller area than in 1886 reached 4,538,604 bushels, while 1880 showed the highest yield of any year, viz., 4,761,856 bushels.

No. 106.—Maize.—Area under Crop and Yield obtained :—

| Year. | Area under crop. | Produce. | Year. | Area under crop. | Produce. |
|---|---|---|---|---|---|
| | Acres. | Bushels. | | Acres. | Bushels. |
| 1862 | 57,959 | 1,727,434 | 1875 | 118,436 | 3,618,436 |
| 1863 | 75,991 | 2,559,258 | 1876 | 117,582 | 3,410,517 |
| 1864 | 95,689 | 2,925,950 | 1877 | 116,364 | 3,879,537 |
| 1865 | 101,584 | 3,114,212 | 1878 | 105,510 | 3,551,806 |
| 1866 | 113,443 | 2,759,904 | 1879 | 130,582 | 4,420,580 |
| 1867 | 119,519 | 3,878,064 | 1880 | 135,034 | 4,761,856 |
| 1868 | 115,522 | 3,132,505 | 1881 | 127,196 | 4,518,897 |
| 1869 | 120,807 | 3,777,405 | 1882 | 117,478 | 4,330,956 |
| 1870 | 128,041 | 4,880,805 | 1883 | 118,180 | 4,057,635 |
| 1871 | 107,178 | 2,340,654 | 1884 | 123,634 | 4,538,604 |
| 1872 | 119,956 | 4,015,973 | 1885 | 115,600 | 3,389,505 |
| 1873 | 116,745 | 3,984,958 | 1886 | 132,709 | 4,336,163 |
| 1874 | 116,648 | 4,128,865 | 1887 | 146,957 | 3,825,146 |

Maize is not only cultivated as a grain crop, but a small area is sown for green food for cattle, chiefly on dairy farms. In 1886, the area thus cultivated was 5,051 acres, the greater part in the Camden and south coast districts.

## *OATS.*

Principal centre of oat cultivation.

This cereal is cultivated as a grain crop, principally in the wheat-growing districts of the Colony; and as it is essentially a produce of cold climates, it thrives best in those parts of the country with a winter of some severity. Bathurst, Carcoar, Orange, Monaro, and New England, are the principal centres of oat cultivation in New South Wales.

In the district of Tumut little attention has been hitherto paid to the crop, although the average yield, over the small area cultivated, reached 26 bushels per acre, or nearly 1 bushel above the average yield for the whole Colony during the season 1886–7. No oats are grown in the northern portion of the coastal districts for the purpose of a grain crop. In the southern coast districts the area under oats for grain is very limited, but that under oats for hay or green food is not inconsiderable.

Area in cultivation.

The following table illustrates the state of the cultivation of this crop since 1862.

No. 107.—Oats.—Area under Crop and Yield obtained :—

| Year ended 31st March. | Area. | Production | Average per acre. | Year ended 31st March. | Area. | Production. | Average per acre. |
|---|---|---|---|---|---|---|---|
| | Acres. | Bushels. | Bushels. | | Acres. | Bushels. | Bushels. |
| 1862 | 7,224 | 152,426 | 21·1 | 1875 | 17,973 | 293,135 | 16·7 |
| 1863 | 9,988 | 201,415 | 20·2 | 1876 | 18,855 | 352,966 | 18·7 |
| 1864 | 13,022 | 213,924 | 16·4 | 1877 | 21,829 | 461,916 | 21·1 |
| 1865 | 14,098 | 189,524 | 13·4 | 1878 | 18,581 | 358,853 | 19·3 |
| 1866 | 10,939 | 116,005 | 10·6 | 1879 | 22,129 | 447.912 | 20·2 |
| 1867 | 14,914 | 304,028 | 20·4 | 1880 | 23,883 | 516,937 | 21·7 |
| 1868 | 13,142 | 156,965 | 11·9 | 1881 | 17,923 | 356,121 | 19·8 |
| 1869 | 12,129 | 164,687 | 13·6 | 1882 | 16,348 | 356,566 | 21·2 |
| 1870 | 17,301 | 400,766 | 23·2 | 1883 | 24,818 | 617,468 | 24·9 |
| 1871 | 10,683 | 119,365 | 11·2 | 1884 | 17,810 | 376,635 | 21·1 |
| 1872 | 13,795 | 280,887 | 20·3 | 1885 | 19,472 | 425,920 | 21·9 |
| 1873 | 13,586 | 270,967 | 19·9 | 1886 | 14,117 | 279,107 | 19·8 |
| 1874 | 16,172 | 302,600 | 18·9 | 1887 | 23,947 | 600,892 | 25·1 |

It will be seen that the cultivation of oats for grain has more than trebled during the period embraced by this table, but it will also be noticed that the area now under cultivation barely exceeds that of the year 1877, the increase during the decennial period being only 2,118 acres. The area cultivated during several years since 1877 has fallen greatly below that of the year named; during 1885–6, indeed, there was a decrease of 7,712 acres. The yield obtained during the past season, namely, 600,892 bushels, was once exceeded during the last quarter century, 617,468 bushels of oats having been harvested in 1883–4. The best average yield per acre was likewise obtained during the seasons of 1883 and 1887, 24·9 bushels having been obtained per acre in the former year, and 25·1 bushels in the latter. Cultivation of oats for grain.

The mean average production of oats for grain for the period 1861–6 was 19·0 bushels per acre, the minimum obtained in any year being 10·6 bushels in the season 1865–66, and the maximum 25·1 bushels in that of 1886–87.

Compared with the other Continental Colonies, New South Wales holds, in regard to average yield, the second rank, Victoria coming first, but both these colonies are surpassed by Tasmania and New Zealand. The climate of the latter colonies is much better adapted for the successful cultivation of this grain, the average produce of New Zealand in particular being very nearly equal per acre to that of the United Kingdom, and it is on a par with the best oat-producing countries of the Old World.

In the following table figures will be found giving the average per acre produced in each of the Australasian Colonies during the last fifteen years, the records for Queensland alone being incomplete. Average yield of oats per acre in N. S. Wales and other colonies.

No. 108.—Average Production of Oats per Acre in the various Australasian Colonies :—

| Colonies. | 1873. | 1874. | 1875. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883 | 1884. | 1885. | 1886. | 1887. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| New South Wales | 19·94 | 18·71 | 16·31 | 18·72 | 21·16 | 19·31 | 20·24 | 21·64 | 19·87 | 21·81 | 24·88 | 21·15 | 21·87 | 19·77 | 25·08 | 20·66 |
| Victoria ............ | 19 55 | 15·69 | 18·46 | 21·92 | 19·91 | 19·39 | 17·60 | 24·00 | 17·62 | 24·57 | 26·17 | 25·07 | 23·40 | 21·72 | 22·90 | 21·29 |
| South Australia ... | 16·39 | 10·61 | 14·61 | 16·69 | 10·65 | 11·96 | 12·01 | 15·02 | 11·50 | 10·66 | 11·13 | 14·65 | 12·20 | 12·20 | 12·20 | 12·82 |
| Queensland ......... | ... | ... | ... | ... | ... | 10·11 | 9·65 | 24·74 | 17·94 | 12·74 | 16·58 | 8·90 | 15·17 | 4·84 | 10·41 | 13·11 |
| Western Australia | 13·24 | 19·22 | 16 00 | 15·00 | 15·00 | 14·00 | 18·02 | 19·00 | 19·00 | 10·00 | 15·03 | 17·00 | 18·00 | 14 50 | 16·00 | 16·92 |
| Tasmania ............ | 25·85 | 20·98 | 26 82 | 25·40 | 24·21 | 22·32 | 24·82 | 28·61 | 22·13 | 28·44 | 27·34 | 27·39 | 28·65 | 26·82 | 25·95 | 22·38 |
| New Zealand ...... | 27·00 | 29·81 | 35·22 | 37·79 | 31·24 | 31·68 | 30·11 | 36·53 | 32·05 | 28·45 | 32·89 | 35·11 | 34·84 | 26·11 | 30·92 | 31·98 |

The average yield in the principal countries of the world where oats are extensively grown is as follows :—

Average yield in principal countries.

| Countries. | Average produce of oats per acre. |
|---|---|
| | Bushels. |
| Holland | 42·1 |
| Belgium | 41·8 |
| Norway | 39·7 |
| United Kingdom | 37·7 |
| Denmark | 32·3 |
| France | 26·0 |
| United States of America | 26·0 |
| Germany | 21·9 |
| Austria | 20·9 |
| New South Wales | 20·7 |
| Hungary | 20·2 |
| Italy | 19·3 |
| Russia | 12·3 |
| Cape of Good Hope | 8·1 |

Thus New South Wales, though not among the richest oat-growing countries of the world, still holds an intermediate rank, and is almost on a par with Germany and Austria, and above Hungary, Italy, Russia, and the Cape.

Cultivation of oats neglected

The cultivation of oats as a staple agricultural crop has been much neglected in the Colony, though the return has not been unsatisfactory. It is possible that in the near future the growth of this grain will receive greater attention, especially as the deficiency between the production and the consumption is very considerable. The elevated districts of Monaro, Argyle, Bathurst, and New England, in preference to other parts of the Colony, contain vast areas of land where the cultivation of this grain can be carried on with remunerative results.

In connection with this subject it may not be generally known that the relative nourishment of oats exceeds that of either maize or wheat, weight for weight. If 100 be taken as the value of oats for fattening purposes, the respective values of equal weights of the other cereals are:—

| | |
|---|---|
| Oats | 100 |
| Wheat | 70 |
| Maize | 62 |

And for equal measures:—

| | |
|---|---|
| Oats | 100 |
| Wheat | 131 |
| Maize | 107 |

The production of this grain is far from satisfying the wants of the Colony, and the importation is, therefore, very large, 1,162,287 bushels having been imported from abroad in the year 1886.

Supply from New Zealand.

New Zealand is the principal source of supply, the quantity obtained from that colony in 1886 being 924,925 bushels. Much yet remains to be done before the Colony can be independent of outside assistance in regard to the supply of oats, as, for some years past the quantity produced was only 20 per cent. of the amount consumed, and there would thus be ample market within New South Wales for the produce of 40,000 acres more than is usually reaped.

In parts of the Colony where the climate is not suitable for the growth of the grain, a large area is sown for hay and green food. The area under oats for these purposes has increased from 28,109 acres in 1861 to 128,962 acres in 1886, being over four and a-half times as large in the latter as in the former year.

Oaten hay in demand.

Oaten hay is much in demand, and sells readily at remunerative prices; and, as there is less expense and lighter labour attached to this form of cultivation, the system of growing oats for hay is

Oats for hay and green food.

consequently more in favour with the New South Wales farmers than the cultivation of the grain. The area under the two crops stood to each other in the following relation in the year 1886:—

| | | |
|---|---|---|
| Area under oats for grain ........................ | 23,947 | acres. |
| Area under oats for hay and green food ......... | 128,962 | ,, |
| Total area under oats ............... | 152,909 | ,, |

The area harvested for grain being only 15·3 per cent. of the total area under oats.

## *BARLEY.*

The cultivation of barley is very limited, the total area under crop for grain being only 6,079 acres in 1886–7, or 11,751 acres if the area laid down for hay and green food be included, whilst the acreage is no larger than twenty years ago.

The following table illustrates the state of barley cultivation since the year 1862.

No. 109.—Cultivation of Barley for Grain:—

| Year. | Area under barley for grain. | Production. | Year. | Area under barley for grain. | Production. |
|---|---|---|---|---|---|
| | Acres. | Bushels. | | Acres. | Bushels. |
| 1862 | 3,924 | 41,054 | 1875 | 3,984 | 69,053 |
| 1863 | 2,538 | 30,636 | 1876 | 4,817 | 98,756 |
| 1864 | 4,093 | 67,009 | 1877 | 5,662 | 134,158 |
| 1865 | 4,724 | 60,355 | 1878 | 5,055 | 99,485 |
| 1866 | 5,844 | 58,370 | 1879 | 6,152 | 132,072 |
| 1867 | 6,211 | 91,741 | 1880 | 6,130 | 131,541 |
| 1868 | 5,140 | 62,392 | 1881 | 8,056 | 163,395 |
| 1869 | 6,397 | 94,715 | 1882 | 6,427 | 135,218 |
| 1870 | 9,152 | 148,617 | 1883 | 6,473 | 133,050 |
| 1871 | 4,650 | 47,701 | 1884 | 5,081 | 106,496 |
| 1872 | 3,462 | 55,284 | 1885 | 7,036 | 148,869 |
| 1873 | 3,727 | 70,708 | 1886 | 5,298 | 85,606 |
| 1874 | 3,559 | 66,225 | 1887 | 6,079 | 132,949 |

Barley grown on the Hunter Valley.

About one fourth of the whole acreage under barley is to be found in the valley of the Hunter River, the remainder being distributed over a wide extent from the district of Mudgee, along the high table-land, to the southern limits of the Colony. Very little barley is cultivated in the northern part of New South Wales, although it might be grown successfully in the New England district. In the western division of the coastal region, the area under this crop is insignificant.

Average production.

The average production per acre during the season 1886–7 was 21·87 bushels, or an increase of 1·18 bushels per acre over the average for previous years, which amounted to 20·69 bushels. The stationary condition of this industry is due to the small demand for the grain within the Colony.

Quantity of barley imported.

In 1886, the quantity of barley imported to make up the deficiency of home production amounted to 61,097 bushels, valued at £9,330, principally obtained from New Zealand and Victoria. It will therefore require a very little effort on the part of the farmers to bring the production of this grain up to the level of the consumption.

Barley for green food for cattle.

An area very nearly equal to that cultivated for grain is also laid down for hay, and for the purpose of providing green fodder for cattle, the figures for the season 1886–7 being 6.079 acres of Barley for grain; 5,072 acres of Barley for hay and green food.

### *PRODUCTION AND CONSUMPTION OF GRAIN.*

The total consumption of grain of all kinds in New South Wales amounts to 10·4 bushels per head of population, whilst the produce of the Colony is only 7·8 bushels or 75 per cent. of the total consumption. The deficiency in the production of wheat amounts to 33 per cent.; barley, 27 per cent, and oats, 83 per cent. There is, however, an excess in the production of maize over the local consumption which reduces the total average deficiency in the production of the principal grain crops to 25 per cent. There is no apparent reason why the local production of grain should not equal the local demand; on the contrary, the resources of the Colony are such that the supply of grain should largely exceed the requirements, and an increasing excess of production become yearly available for export, either as grain or as meat.

N.S.W. yield greater than other colonies.

The experience of past years distinctly shows that in the matter of soil, climate, and other natural conditions, New South Wales is, on the whole, better favoured, and consequently her average yield per acre of wheat, maize, and barley is greater than that of any other continental Australian province, Victoria not excepted. Extending the field of comparison, the production of cereals is found to reach an average which places New South Wales on a level with countries customarily considered as rich agricultural states. It is better than the average yield of the United States, of Italy, and Hungary; and, in some respects, almost on a level with that of Germany, Austria, and France.

The area adapted for cereal growing is very considerable, and with a better knowledge of the capabilites of the various kinds of soils and well devised means of water storage, there should be practically no limit to the production of grain.

### *MINOR GRAIN CROPS.*

The minor grain crops harvested only consist of rye, millet, sorghum, and imphee. Little can be said on this subject except that, as is the case for other cereals, the suitability of the soil for their production is an established fact. There is, however, so little demand for these kinds of grain that their cultivation in New South Wales is very limited.

Rye.

The area under rye for grain in 1886 only covered 1,095 acres, whilst an almost equal area, 1,049 acres, was sown for green food. The average production of the grain crop was 16·1 bushels per acre.

Millet.

Millet was only cultivated over an area of 690 acres, 325 of which were harvested for grain, the remaining 365 acres being cut green for cattle. Two-thirds of the whole crop of millet was obtained in the Hunter River valley. The average production of the Colony amounted to 14·5 bushels per acre.

Sorghum and imphee.

The cultivation of sorghum and imphee for grain is still smaller, only 102 acres being placed under crop in 1886. The area for green food for cattle amounted to 4,324 acres, and was comprised chiefly within the dairy farming districts of Kiama, Illawarra, and Shoalhaven.

### *SOWN GRASSES, AS FOOD FOR CATTLE.*

The area under these grasses is constantly increasing in the Colony, and in the course of the year 1886 there were under artificial grasses 165,820 acres, an increase of 100,747 acres over the area so cultivated ten years previously.

Lucerne and other permanent grasses are principally laid down in the Hunter districts, and the south coast, 56,245 acres being so cultivated in the Shoalhaven district alone. The practice of sowing permanent grasses is also extending to the north coast districts, and in 1886 there were 18,328 acres under grass in the Richmond district. It is, however, in those portions of the Colony where dairy farming is principally carried on that the practice of laying down permanent grasses is the most general.

### *POTATOES.*

Area under potatoes.

The cultivation of the potato shows little improvement in regard to acreage under crop during the last twenty-five years. There is now a smaller extent of land under potatoes than during the season 1869-70, and the crop of last season is smaller by nearly 36 per cent. than that of 1881-2. At present, the Colony has to make up by importation, chiefly from Victoria, a considerable deficiency, amounting in 1886 to 62,923 tons, or nearly 62 per cent. of the total consumption for the year. The returns for 1886-7, however, exhibit an increase both in the area under cultivation and the total production, but the yield per acre is smaller by 1·5 tons than the average of previous years. The total yield during the last season amounted to 45,803 tons.

Total production and yield per acre.

The following table illustrates the state of the cultivation of potatoes since 1862.

No. 110.—Area under Potatoes, and Production for the years ended 31st March, 1862 to 1887:—

| Year ended March. | Acres. | Tons. | Year ended March. | Acres. | Tons. |
|---|---|---|---|---|---|
| 1862 | 10.040 | 80,942 | 1875 | 13,604 | 38,564 |
| 1863 | 9,284 | 24,167 | 1876 | 13,805 | 41.203 |
| 1864 | 11,618 | 32 141 | 1877 | 14,171 | 42,939 |
| 1865 | 14.398 | 52,061 | 1878 | 13,862 | 34,957 |
| 1866 | 15,210 | 31,367 | 1879 | 16,724 | 53,590 |
| 1867 | 18,810 | 43,870 | 1880 | 19,271 | 62,228 |
| 1868 | 15,440 | 33,482 | 1881 | 19,095 | 52,112 |
| 1869 | 16,391 | 30,768 | 1882 | 15,944 | 44,323 |
| 1870 | 17,132 | 54,200 | 1883 | 14,462 | 43.461 |
| 1871 | 13,927 | 34,118 | 1884 | 14.954 | 36,977 |
| 1872 | 14.770 | 44.758 | 1885 | 12,417 | 31.335 |
| 1873 | 15.124 | 45,112 | 1886 | 15,166 | 38,695 |
| 1874 | 14,212 | 42,281 | 1887 | 17,322 | 45,803 |

Principal centre of cultivation.

At present, the centres of potato-growing are Orange, Carcoar Argyle, and New England. Its cultivation is, however, very widely distributed throughout the Colony, but in many places formerly well-known for its production, it has been largely displaced by maize and other cereals.

## *TOBACCO.*

Soil and climate of New South Wales suited for tobacco.

Both the soil and climate of the Colony of New South Wales are well fitted for the growth of the tobacco plant. Tobacco, however, demands for its proper cultivation special knowledge on the part of the growers, and is not for this reason so largely cultivated as would otherwise be the case.

In the year 1862, the first shown on the subsequent table, there were only 224 acres under cultivation, producing 2,467 cwts. of leaf tobacco. In the following years, however, the area had largely increased, chiefly in the agricultural districts of Argyle and the Hunter River valley. Since then, the growth of tobacco seems to have been almost entirely abandoned in the districts where it was first attempted, but it has spread to other parts of the Colony; the Murrumbidgee valley and Tumut being now the principal producers. More than a third of all the tobacco grown in the Colony is obtained from the latter district.

**Chinese principal cultivators.**

The growth of tobacco is chiefly in the hands of Chinese, few European agriculturists seemingly being sufficiently skilled in its cultivation and the preparation of the leaf.

During the last ten years, the area devoted to the cultivation of tobacco has more than trebled, and it is a noteworthy fact that the quantity of colonial leaf used in the Colony now amounts to three-fourths of the total consumption.

**Area and production.**

The following table shows the progrees of the industry during the last quarter century.

No. 111.—Cultivation of Tobacco :—

| Year ended 31st March. | Area. | Production. | Year ended 31st March. | Area. | Production. |
|---|---|---|---|---|---|
| | Acres. | Cwt. | | Acres. | Cwt. |
| 1862 | 224 | 2,467 | 1875 | 539 | 6,069 |
| 1863 | 896 | 15,315 | 1876 | 491 | 4,098 |
| 1864 | 534 | 4,851 | 1877 | 333 | 2,440 |
| 1865 | 807 | 4,036 | 1878 | 399 | 3,049 |
| 1866 | 1,499 | 7,469 | 1879 | 835 | 7,932 |
| 1867 | 1,326 | 2,478 | 1880 | 592 | 6,221 |
| 1868 | 627 | 6,035 | 1881 | 1,791 | 19,469 |
| 1869 | 875 | 7,925 | 1882 | 1,625 | 18,311 |
| 1870 | 366 | 3,192 | 1883 | 1,815 | 17,540 |
| 1871 | 225 | 700 | 1884 | 1,786 | 20,006 |
| 1872 | 567 | 4,475 | 1885 | 1,046 | 9,914 |
| 1873 | 440 | 2,751 | 1886 | 1,603 | 22,947 |
| 1874 | 199 | 1,261 | 1887 | 1,203 | 13,642 |

## SUGAR-CANE.

Introduction of the sugar-cane in New South Wales

The first agricultural returns in which mention is made of the cultivation of the sugar-cane and the production of sugar in New South Wales, only date from 1863. In that year two acres were returned as having produced 280 lb. of sugar, and it will appear strange that out of this quantity 220 lb. were stated to be the produce of one acre of cane, grown in the northern part of the county of Bathurst, while the remaining 60 lb. were produced on the banks of the Macleay River. The district last mentioned may be considered as the principal seat of this industry during its earlier stages. Cane cultivation, however, soon extended to the northward, and in a very few years the richest portions of the lower valleys of the Clarence, Richmond, Tweed, and Brunswick, were occupied by settlers engaged in the planting and growing of canes. Mills were erected in the chief centres of cane cultivation, and cane-growing and sugar manufacturing are now the principal and best established industries of the north-eastern portions of the Colony.

Northern rivers suit sugar-cane.

The soil and climate of the valleys of the northern rivers are in most respects well adapted to the successful cultivation of the sugar-cane. Occasional spring frosts, however, cause considerable damage, and it was the risk of failure from this cause which led the settlers on the Macleay to seek a warmer climate farther north, free from the danger arising from frost. In this, they only partially succeeded, for in the Clarence, Richmond, and Tweed valleys, frosts are not altogether unknown.

Progress of sugar-growing.

The following table shows the progress of this industry during the last eleven years. The figures relating to the area yearly placed under cane are obtainable for earlier dates, but the number of tons produced cannot be ascertained prior to 1876.

The sugar-cane not being an annual crop, the area under cultivation has been divided, as far as practicable, into productive and non-productive, the former representing the number of acres upon which the cane was cut during the season, and the latter the area over which it was unfit for the mill, or allowed to stand for another year.

## No. 112.—Area in Production of Sugar-cane.

| Year. | Area. | | Total. | Production in tons of cane. |
|---|---|---|---|---|
| | Productive. | Non-productive. | | |
| | Acres. | Acres. | Acres. | |
| 1863 | ......... | ......... | 2 | ......... |
| 1864 | ......... | ......... | 22 | ......... |
| 1865 | ......... | ......... | 141 | ......... |
| 1866 | ......... | ......... | 116 | ......... |
| 1867 | ......... | ......... | 647 | ......... |
| 1868 | ......... | ......... | 2,584 | ......... |
| 1869 | ......... | ......... | 3,917 | ......... |
| 1870 | 1,475 | 2,607 | 4,082 | ......... |
| 1871 | 1,995 | 2,399 | 4,394 | ......... |
| 1872 | 3,470 | 2,001 | 5,471 | ......... |
| 1873 | 3,565 | 3,105 | 6,670 | ......... |
| 1874 | 4,087 | 4,453 | 8,540 | ......... |
| 1875 | 3,654 | 2,800 | 6,454 | ......... |
| 1876 | 3,524 | 3,231 | 6,755 | 99,430 |
| 1877 | 3,332 | 3,735 | 7,067 | 99,978 |
| 1878 | 2,950 | 4,489 | 7,439 | 104,192 |
| 1879 | 3,675 | 4,103 | 7,778 | 126,119 |
| 1880 | 4,465 | 6,506 | 10,971 | 121,612 |
| 1881 | 4,984 | 7,184 | 12,168 | 128,752 |
| 1882 | 6,362 | 7,176 | 13,538 | 169,192 |
| 1883 | 7 583 | 7,401 | 14,984 | 204,547 |
| 1884 | 6,997 | 10,520 | 17,517 | 105,323 |
| 1885 | 9,583 | 6,836 | 16,419 | 239,347 |
| 1886 | 5,915 | 9,202 | 15,117 | 167,959 |

Proregss of sugar-growing.

The figures contained in the above table show the gradual progress of the sugar-growing industry, from the small beginnngs of 1863. From the starting point of this cultivation to the year 1884, there is no break in the yearly increase of land put under cane. During the last two years, however, there has been a tendency to retrogression, and the area now cultivated is less by 2,400 acres, or nearly 14 per cent., than in 1884. It is probable that the low price of sugar and the disturbed state of the markets of the world during these years, forced the sugar manufacturers to correspondingly reduce the price offered for the canes, and so caused the abandonment of this cultivation by the small farmers, who found in maize a less variable crop.

Principal centres of Sugar-cane cultivation.

The Richmond River electorate is now the principal centre of sugar-cane cultivation, and in 1886, there were 494 holdings, upon which areas, varying from 2 to 500 acres in extent, were devoted to this culture. The total area so planted was 9,778 acres, or nearly two-thirds of the whole area under cane in the Colony. The yield obtained from 4,066 acres of productive cane amounted to 121,277 tons, showing an average of 29½ tons per acre.

On the Clarence River, in the electoral districts of Grafton and the Clarence, there were, in 1886, 375 holdings, on which cane was grown, the aggregate area under this crop being 5,121 acres. As in the Richmond River district, the majority of farmers cultivate sugar-cane in addition to other crops, and only a few estates are entirely devoted to its cultivation. Some planters have areas of from 25 to 100 acres in extent under cane, but their number is very limited. The average yield in the Clarence and Grafton electorates was 25·9 tons per acre, cut on an area of 1,809 acres.

In the Macleay River district, the area devoted to sugar-cane is now insignificant, only 175 acres having been returned in 1886 as under crop, of which 33 acres were productive.

Total crop of sugar.

The whole crop of sugar-cane during the last season amounted to 167,959 tons, obtained from 5,915 acres, showing an average production of 28·39 tons per acre, which is considerably above the average of former years. This result is no doubt owing to the better knowledge of this branch of agriculture now possessed by the planters, to the majority of whom sugar-cane cultivation was unknown until very recently. On the estates belonging to the Colonial Sugar-refining Company, not only has the conduct of the business of the plantation been entrusted to practical men, but no money has been spared to obtain the most approved and complete plant for the manufacture of sugar. This company's mills on the Richmond River are among the most complete in any part of the world, and the sugar manufactured is equal to the best Mauritius and West Indian samples.

Beet-sugar competition.

In adjoining colonies, great fears appear to be entertained lest the French and German beet-root sugar manufacturers, who receive substantial aid from their respective Governments, in the shape of export bounties, should enter into competition with the Australian sugar interest. The immense exportation of bounty-fed sugars has no doubt had the effect of lowering the price of the article all over the world, and the Australian planters necessarily suffer from this cause in an indirect manner. But in New South Wales, at any rate, there does not appear to exist much ground for alarm that the local markets will be swamped by the cheap bounty-fed sugar. Referring to the quantities and value of sugar imported into the Colony during the year 1886, it will be seen that the total quantity, both of raw and refined sugar imported from France, Germany, and Belgium amounted in the aggregate to the very small figure of 50 tons, valued at £1,340. If to this be added 306 tons of raw and refined sugars imported from Great Britain, on the supposition that they originally came from the bounty-giving continental countries, and the value of which is estimated at £6,755, it will be found that the total importations from European ports only amounted in 1886 to 356 tons of raw and refined sugar, valued at £8,095. When compared with the whole of the sugar imported during the year, viz., 30,199 tons, valued at £484,638, the insignificance of the European competition in the markets of New South Wales, will be at once apparent.

### *VINES AND WINE PRODUCTION.*

In every part of the Colony, excepting the essentially sub-tropical portion and the higher parts of the mountain ranges, grape vines thrive well, and bear large crops of succulent fruit, equal in size, appearance, and flavour, to the most renowned products of France, the Rhinelands, and Spain; yet the vine-growing and wine manufacturing industries are still in their infancy in this colony, although their prospects are as hopeful as could be desired.

Markets for Australian wine.

With a total demand which the present production hardly satisfies, and the opening up of a market in England, where the New South

Wales, in common with other Australian wines, have obtained due appreciation, the future of vine-growing appears fairly assured. The depreciation which French and other foreign wines have suffered, both in quantity and in quality, owing to the havoc caused by the scourge of the phylloxera, is an additional reason for the vine-growers of New South Wales looking forward to a successful future for their industry.

Vine planted in early days.

The vine was planted in the early days of the colonization of New South Wales, but it was not until the year 1828 that vine-growing and wine-making can be said to have been fairly established. In that year Mr. Busby returned from Europe, with a large collection of cuttings from the most celebrated vineyards of France, Spain, the Rhine valley, and other parts of the continent of Europe, and planted, on his estate in the Hunter River district, a vineyard which has been the nursery of the principal vineyards of the Colony. Some years afterwards the vine was planted in the Murray valley, and in other portions of the Colony, and was found to flourish so luxuriantly that the manufacture of wine received considerable attention. For a while, however, the prospects of this industry seemed very poor, and production diminished considerably, partly owing to the want of a market, and also because the wine-makers, many of whom were not vignerons by trade, only possessed a limited knowledge of the manufacture of wine, and produced at first an article of an inferior and unsaleable quality. But in the principal vineyards of the Murray and the Hunter, neither money nor pains were spared to introduce skilled labour and put up presses, vats, and other manufacturing appliances of the most approved pattern. The results of this intelligent treatment became apparent, when prizes were awarded to the New South Wales wines at the Paris Exhibition of 1878, and followed by an unbroken series of successes at the Exhibitions of Philadelphia, Sydney, Melbourne, and Amsterdam, and latterly at the Indian and Colonial Exhibition in London. But nowhere was the general excellence of the New South Wales wines more fully recognized than at the Bordeaux

New South Wales wines at the Bordeaux Exhibition in 1882.

Exhibition of 1882. There, in the principal centre of the wine trade of the world, the New South Wales wines were classed by the most competent judges in the category of "Grands vins," and their value fully appreciated and established. The rewards obtained were numerous, and the wine industry, which had before exhibited signs of retrogression, again brightened, and now promises to become one of the principal agricultural industries of New South Wales.

Progress of vine-growing.

The following statement shows the progress of the wine industry since 1862 :—

No. 113.—Area under Grape Vines and Production of Wine, from 1861 to 1886.

| Year ended 31st March. | Total area under vines. | Area under vines for wine-making only. | Production. | Average per acre |
|---|---|---|---|---|
| | Acres. | Acres. | Gallons. | Gallons. |
| 1862 | 1,130 | 562 | 85,328 | 151·83 |
| 1863 | 1,460 | 795 | 143,888 | 182·25 |
| 1864 | 1,641 | 880 | 136,976 | 155·65 |
| 1865 | 1,849 | 945 | 161,299 | 170·69 |
| 1866 | 2,126 | 1,243 | 168,123 | 135·25 |
| 1867 | 2,281 | 1,358 | 242,183 | 178·33 |
| 1868 | 2,532 | 1,483 | 285,283 | 192 37 |
| 1869 | 3,117 | 1,917 | 412,587 | 215·22 |
| 1870 | 3,907 | 2,039 | 460,321 | 225·75 |
| 1871 | 4,504 | 2,371 | 342,674 | 144·53 |
| 1872 | 4,152 | 2,466 | 413,321 | 167·61 |
| 1873 | 4,090 | 2,568 | 451,450 | 175·80 |
| 1874 | 4,547 | 3,183 | 578,985 | 181·90 |
| 1875 | 4,301 | 3,077 | 684,258 | 222·37 |
| 1876 | 4,459 | 3,163 | 831,749 | 262·96 |
| 1877 | 4,457 | 3,217 | 799,709 | 248·59 |
| 1878 | 4,184 | 3,027 | 708,431 | 234·04 |
| 1879 | 4,237 | 3,024 | 684,733 | 226·43 |
| 1880 | 4,266 | 3,091 | 733,576 | 237·38 |
| 1881 | 4,800 | 2,907 | 602,007 | 207·09 |
| 1882 | 4,028 | 2,597 | 513,688 | 197·80 |
| 1883 | 4,418 | 2,629 | 543,596 | 206·76 |
| 1884 | 4,378 | 2,660 | 589,604 | 221·65 |
| 1885 | 4,584 | 2,405 | 442,612 | 184·04 |
| 1886 | 5,247 | 2,876 | 555,470 | 193 13 |
| 1887 | 5,840 | 3,131 | 601,897 | 192·23 |
| Average for twenty-six years ................. | | | | 196·60 |

Increase of wine industry.

The above figures show that the wine industry has considerably increased during the period of twenty-six years under examination, the total area planted being now five times as large as it was at the beginning of the period. The production, both in the total number of gallons and the average per acre, also shows a corresponding increase, but the latter is probably due to the fact that in the earlier period the proportion of young vines not in full-bearing was greater than is at present the case.

The years 1875, 1876, and 1879 were the best of the series, the average production having in 1876 reached the large figure of 262·96 gallons per acre.

The phylloxer vastatrix.

The "phylloxera vastatrix" which has caused some damage in the vineyards of the neighbouring colony of Victoria, necessitating stringent legislative measures, has also appeared in some vineyards of the Camden district, but, so far, without causing any great ravages. A commission was appointed some time ago to report on the appearance of the disease, and the best means of preventing its spread. The prohibition of the importation of vine-cuttings from abroad is so far the only piece of preventive legislation which has been enforced, the Act to stamp out the disease having been found unworkable.

Cultivation of table grapes.

The vine-growing industry is not, however, restricted to the cultivation of fruit for wine-making purposes; a considerable area is devoted to the cultivation of table grapes, principally in the neighbourhood of Sydney, and in the districts of Ryde, Parramatta, and other portions of Central Cumberland.

The area so cultivated in 1886 amounted to 1,294 acres, producing 1,945 tons of grapes, or at the rate of 1½ ton of fruit per acre. There were also 14,155 acres of vines yet in an unproductive state.

### *ORANGES.*

First orangeries near Parramatta.

The cultivation of the orange has become one of the principal industries of the districts surrounding the metropolis. The first orange groves were planted near the town of Parramatta, and soon spread to the neighbouring districts of Ryde, Pennant Hills, Lane Cove, the whole of Central Cumberland, and the Hawkesbury and Nepean valleys. The production of oranges has already attained such proportions that the growers are obliged to seek markets abroad for the disposal of their produce, as the demand, both in New South Wales and the adjacent colonies, is largely exceeded by the supply. Efforts have been made of late to open up a market in England, as the fruit can be delivered in London at a time when the supply of oranges from Spain, and other countries of the northern hemisphere, has ceased.

**State of orange-growing in 1879.**

The statistics relative to this branch of the agricultural industry are only available as far back as the year 1878, at which date there were already 4,287 acres under orange cultivation, producing 3,398,445 dozen oranges.

The following statement will, in some measure, illustrate the growth of the industry since the above-mentioned date, but it is believed that the actual yield is considerably in excess of the returns of the growers.

No. 114.—Area of Orangeries, and Production of Oranges from 1878 to 1887 :—

| Year ended 31st March. | Area of orangeries. | Production. | Average production per acre. |
|---|---|---|---|
| | | Doz. | Doz. |
| 1879 | 4,287 | 3,398,445 | 793 |
| 1880 | 5,106 | 2,763,811 | 541 |
| 1881 | 5,939 | 3,810,356 | 642 |
| 1882 | 6,301 | 5,164,134 | 820 |
| 1883 | 6,717 | 4,978,829 | 741 |
| 1884 | 7,269 | 8,102,658 | 1,115 |
| 1885 | 6,912 | 4,097,666 | 593 |
| 1886 | 7,734 | 8,749,256 | 1,131 |
| 1887 | 7,920 | 6,376,868 | 805 |
| Average for nine years .................... | | | 798 |

### *ORCHARDS AND GARDENS.*

During the last ten years there has been very little alteration in the area under gardens and orchards. The cultivation of other varieties of fruit besides oranges and grapes appears to be retrogressing, instead of sharing in the progress observable in almost all other branches of agriculture. Yet the Colony consumes annually very large quantities of imported fruit, of kinds which could be successfully grown within its own limits. Leaving out of consideration the large importation of tropical fruit from Fiji, New Caledonia, and Queensland, some of which might be cultivated in the sub-tropical portion of New South Wales, the importation of other fruit is very considerable. Thus in 1886, Tasmania, New Zealand, Victoria, and South Australia, supplied New South Wales with 325,030 packages of green fruit, of the value of £145,569. The importation of dried fruit during the same period amounted to 2,707 tons, valued at £100,629, and that of bottled fruit to £2,838. New South Wales is therefore dependent on the outside world, to the extent of nearly one quarter of a million pounds, for fruit, of kinds which could advantageously be cultivated within its territory.

**Large quantity of fruit imported.**

# PART XI.

## Commerce and Shipping.

THE commerce of New South Wales is exceeded in value by that of no other Colony, two dependencies of Great Britain, India and the Canadian Dominion, alone excepted. India, with a population nearly 250 times larger, has a trade hardly four times as great as this Colony, while the Dominion, whose population numbers five times that of New South Wales, barely exceeds it in the value of its commerce.

### *SHIPPING.*

Early shipping records.

Prior to the year 1825, the records of the shipping trade of the Colony are very uncertain; in the year mentioned, however, the shipping amounted to eighty-five vessels inwards, tonnage 24,559, and seventy-five vessels outwards, tonnage 22,688. Twenty-five years afterwards, just before the separation of Port Phillip, the figures stood thus: 976 vessels inwards, with a tonnage of 234,215 tons, and 1,014 vessels outwards, with a tonnage of 263,849 tons. In 1851, the year of the separation of Victoria from the parent Colony, the trade fell to 553 vessels inwards, measuring 153,002 tons, and 503 vessels outwards of 139,020 tons.

Separation of Queensland caused no decline in trade.

The separation of Queensland caused no decline in the trade of the Colony, as shown by the returns. Possibly the classing of northern boats as foreign traders, instead of as coasters, would be the cause of even an apparent increase, for in 1860, the year following the separation, the shipping amounted to 1,424 vessels, inwards, with a tonnage of 427,835 tons, and 1,438 vessels outwards of 413,484 tons, a considerable advance on the figures of the previous year. From 1860 to the present time, trade has rapidly increased, and at a ratio equal to that of the increase of population, so that in 1886, the tonnage, inwards, amounted to 2,114,618 tons, and the outward tonnage to 2,143,986, or 4,258,604 tons in all.

Quantity and tonnage of shipping.

The rate of increase has been fairly constant, though checked occasionally by the occurrence of bad seasons here, or failure of prices in the European markets. The following table shows the quantity and tonnage of shipping arriving and departing from New South Wales, at intervals of five years, from the date of the earliest records, down to the year 1886.

No. 115.—Number and Tonnage of Vessels entered and cleared in New South Wales :—

| Year. | Vessels inwards. | | Vessels outwards. | |
|---|---|---|---|---|
| | Number. | Tonnage. | Number. | Tonnage. |
| 1825 | 85 | 24,559 | 75 | 22,688 |
| 1830 | 157 | 31,225 | 147 | 28,822 |
| 1835 | 260 | 63,019 | 269 | 66,964 |
| 1840 | 709 | 178,958 | 665 | 163,704 |
| 1845 | 597 | 105.352 | 614 | 103,961 |
| 1850 | 976 | 234,215 | 1,014 | 263,849 |
| 1855 | 1,152 | 353,323 | 1,185 | 362,482 |
| 1860 | 1,424 | 427,835 | 1,438 | 431,484 |
| 1865 | 1,912 | 635,888 | 2,120 | 690,294 |
| 1870 | 1,858 | 689,820 | 2,066 | 771,942 |
| 1875 | 2,376 | 1,109,086 | 2,294 | 1,059.101 |
| 1880 | 2,108 | 1,242,458 | 2,043 | 1,190,321 |
| 1885 | 2,601 | 2,088,307 | 2,583 | 2,044,770 |
| 1886 | 2,684 | 2,114,618 | 2,755 | 2,143,986 |

Shipping of New South Wales compared with that of other colonies.

As already stated, the trade of New South Wales greatly exceeds that of any other colony of the Australian group. Victoria is next in order, though at a considerable distance, after which come South Australia, Queensland, and New Zealand. The total shipping of Australasia for the year 1886, amounted to 12,853,786 tons, of which 4,258,604, or one-third, belonged to New South Wales. The amount of the shipping trade of each Colony, during every year since 1876, is shown in the following table.

## No. 116.—Shipping of Australasian Colonies, Inwards and Outwards :—

| Colony. | 1876. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. |
| New South Wales | 2,127,725 | 2,237,981 | 2,459,504 | 2,540,724 | 2,432,779 | 2,786,500 | 3,296,665 | 4,006,237 | 4,660,958 | 4,133,077 | 4,258,604 |
| Victoria ......... | 1,657,088 | 1,874,985 | 1,913,427 | 1,910,222 | 2,179,899 | 2,411,902 | 2,690,884 | 2,964,331 | 3,151,587 | 3,260,158 | 3,735,387 |
| South Australia | 732,330 | 672,776 | 906,273 | 932,891 | 1,200,904 | 1,269,491 | 1,337,218 | 1,504,765 | 1,834,532 | 1,807,042 | 1,558,476 |
| Queensland ...... | 874,342 | 956,844 | 1,066,758 | 1,256,394 | 1,255,576 | 1,553,808 | 1,880,591 | 882,491 | 1,152,112 | 1,029,181 | 1,120,479 |
| Western Australia.. | 154,126 | 151,133 | 162,753 | 170,037 | 250,429 | 285,046 | 344,247 | 389,102 | 442,886 | 468,035 | 497,508 |
| Tasmania ...... | 277,484 | 319,517 | 315,854 | 381,895 | 413,303 | 383,762 | 417,418 | 471,122 | 614,198 | 677,806 | 692,429 |
| New Zealand ... | 786,514 | 789,177 | 884,983 | 949,692 | 819,716 | 833,621 | 899,836 | 1,002,491 | 1,063,430 | 1,032,700 | 990,953 |
| Total...... | 6,609,609 | 7,002,413 | 7,709,552 | 8,171,855 | 8,552,606 | 9,504,130 | 10,866,859 | 11,220,539 | 12,919,703 | 12,397,999 | 12,853,786 |

Previous to 1883, in the Queensland returns, vessels are entered for every port in the Colony at which they call.

Trade of Colony in British hands.

The trade of the Colony is, to a very large extent, in British hands, though there has been a noticeable increase in foreign shipping since 1880. In 1872, the British shipping entered and cleared amounted to 1,400,672 tons, while in 1886 it was 3,746,725 tons, showing an increase during fourteen years of 2,346,053 tons. The foreign shipping amounted to 187,368 tons in 1872, and 511,879 in 1886, being an increase of 324,511 tons.

French and German mail steamers.

The advent of the French line of Messageries Maritimes, and of the German Lloyd's steamships, has tended to increase the amount of the foreign trade of the Colony, as compared with the British; but notwithstanding this, the tonnage under the British flag was in 1886 not less than 88 per cent. of the whole. The annexed table shows the respective amounts of each class since 1872.

No. 117.—British and Foreign Vessels entered and cleared in New South Wales:—

| Year. | Entered and cleared. | | |
|---|---|---|---|
| | British. | Foreign. | Total. |
| | Tons. | Tons. | Tons. |
| 1872 | 1,400,672 | 187,368 | 1,588,040 |
| 1873 | 1,619,019 | 143,459 | 1,762,478 |
| 1874 | 1,820,146 | 170,748 | 1,990,894 |
| 1875 | 2,001,641 | 166,546 | 2,168,187 |
| 1876 | 1,968,899 | 158,826 | 2,127,725 |
| 1877 | 2,023,656 | 214,325 | 2,237,981 |
| 1878 | 2,202,044 | 257,460 | 2,459,504 |
| 1879 | 2,294,764 | 245,960 | 2,540,724 |
| 1880 | 2,259,924 | 172,885 | 2,432,779 |
| 1881 | 2,563,999 | 222,501 | 2,786,500 |
| 1882 | 2,977,756 | 318,909 | 3,296,665 |
| 1883 | 3,532,955 | 473,282 | 4,006,237 |
| 1884 | 4,300,102 | 460,856 | 4,760,958 |
| 1885 | 3,615,582 | 517,495 | 4,133,077 |
| 1886 | 3,746,725 | 511,879 | 4,258,604 |

Larger portion of tonnage owned in colonies

Of the total tonnage set down as British, the larger portion is owned in the colonies. In 1876, out of 1,969,457 tons of shipping entered and cleared, 1,293,813 tons were colonial, or 66 per cent.; in 1881, out of 2,563,999 tons of British owned shipping entered and cleared, 1,543,431 tons, or 60 per cent., represented colonial shipping; while in 1886, the colonial shipping amounted to 2,242,804 tons, out of a total of 3,746,725 tons, or 60 per cent. The amount of British and British colonial shipping entered and cleared from New South Wales ports during each year since 1876 is shown below.

No. 118.—Tonnage of Vessels owned in Great Britain and in British Possessions, trading to New South Wales:—

| Year. | Shipping belonging to Great Britain. | Shipping belonging to British possessions. | Total, inwards and outwards. |
|---|---|---|---|
| 1876 | 675,644 | 1,293,813 | 1,969,457 |
| 1877 | 690,348 | 1,332,380 | 2,022,728 |
| 1878 | 816,255 | 1,387,236 | 2,203,491 |
| 1879 | 810,815 | 1,481,918 | 2,292,733 |
| 1880 | 760,688 | 1,499,236 | 2,259,924 |
| 1881 | 1,020,568 | 1,543,431 | 2,563,999 |
| 1882 | 1,301,347 | 1,676,409 | 2,977,756 |
| 1883 | 1,429,725 | 2,103,230 | 3,532,955 |
| 1884 | 1,716,255 | 2,469,294 | 4,185,549 |
| 1885 | 1,520,091 | 2,094,491 | 3,614,582 |
| 1886 | 1,503,921 | 2,242,804 | 3,746,725 |

onnage of oreign vessels.

Compared with the figures just given, the tonnage of the foreign vessels trading with New South Wales will appear very small. Taking the year 1886, for which year the inward and outward tonnage for the principal nationalities are given below, France stands first, a position which she assumed in 1883. America comes next, at no great distance from France. Her tonnage has practically not increased for many years, though at one time she threatened to be a formidable rival of Great Britain for the carrying trade of the Colony. After America comes Germany, whose tonnage reached its present proportion in 1882. Sweden and Norway is the only other nation whose carrying trade with the Colony is important.

No. 119.—Nationalities of Foreign vessels entered and cleared in New South Wales during 1886 :—

| | Tonnage. |
|---|---|
| France | 167,229 |
| America | 164,552 |
| Germany | 93,308 |
| Norway and Sweden | 66,932 |
| Chili | 5,776 |
| Austria | 3,502 |
| Italy | 1,498 |
| Other nations | 9,082 |
| Total | 511,879 |

The records do not distinguish the steam from the sailing vessels before the year 1876, but the modern tendency to supersede sailing vessels by steam is abundantly apparent even in the ten years which have since elapsed.

Steam and Sailing tonnage.

In 1876, the steam tonnage was 912,554 as compared with 1,215,171 tons of sailing vessels, being 57 per cent. of sailing, and 43 per cent. of steam tonnage ; in 1886, the relative positions were considerably changed, for whereas the tonnage of sailing vessels had barely increased, being only 1,276,482 tons, or 30 per cent., as against 2,982,122 tons of steam, or 70 per cent. of the whole shipping. The net increase of steam tonnage for the ten years has therefore been rather more than 22·5 per cent. The tonnage of each kind during the various years was as under :—

No. 120.—Tonnage of Steam and Sailing Vessels entered and cleared, 1876–86.

| Year. | Steam. | Sailing. | Year. | Steam. | Sailing. |
|---|---|---|---|---|---|
| | Tons. | Tons. | | Tons. | Tons. |
| 1876 | 912,554 | 1,215,171 | 1882 | 1,996,663 | 1,300,002 |
| 1877 | 1,007,676 | 1,230,302 | 1883 | 2,702,196 | 1,304,041 |
| 1878 | 1,105,200 | 1,354,304 | 1884 | 3,373,710 | 1,287,248 |
| 1879 | 1,231,423 | 1,309,301 | 1885 | 2,791,843 | 1,341,234 |
| 1880 | 1,550,372 | 882,407 | 1886 | 2,982,122 | 1,276,482 |
| 1881 | 1,758,304 | 1,028,196 | | | |

Tonnage arriving in ballast.

The advantage offered by the New South Wales trade to shipowners is illustrated by the large amount of tonnage coming to the colony in ballast, and the small amount leaving without cargo. A large proportion of the vessels arriving in ballast come from the ports of the neighbouring colonies, having delivered a general cargo there, and, being unable to obtain return freight, go to Newcastle for a cargo of coal. The largest amount of tonnage in any one year since 1876 entered in ballast was in 1884, when it reached 395,990 tons, and the largest cleared was 60,457 tons in the same year. The tonnage entered and cleared for each year is given below.

No. 121.—Tonnage Entered and Cleared in Ballast, 1876–86 :—

| Year. | Entered. | Cleared. | Year. | Entered. | Cleared. |
|---|---|---|---|---|---|
| | Tons. | Tons. | | Tons. | Tons. |
| 1876 | 262,953 | 17,859 | 1882 | 325,480 | 23,338 |
| 1877 | 295,569 | 8,393 | 1883 | 384,645 | 27,855 |
| 1878 | 354,917 | 13,115 | 1884 | 395,990 | 60,457 |
| 1879 | 337,696 | 19,892 | 1885 | 345,366 | 53,381 |
| 1880 | 217,763 | 16,219 | 1886 | 353,969 | 40,635 |
| 1881 | 271,343 | 5,179 | | | |

Value of imports per ton high.

Notwithstanding the fact that more than one-sixth of the tonnage arriving in the Colony is in ballast, as against one-fiftieth of the clearances, the average value of freights inward is much higher than of those outward, thus in 1886 the average value of the cargoes imported was £9 6s. 8d. per ton of vessels carrying that cargo, or, if an allowance be made for ships in ballast, the value per ton was £10 19s. The mean value of goods exported per ton of shipping outward was £5 8s. 7d., and allowing for vessels leaving in ballast £5 9s., in the former case 41 per cent. lower, and in the latter 50 per cent. than the value of tonnage imported.

Value of exports per ton.

New South Wales exports have, generally speaking, a high value per ton, and the less value of the exports per ton than the imports is almost entirely due to the large amounts of coal exported the quantity for 1876 being 1,735,865 tons weight, or 500,000 tons measurement, out of a total of 2,143,986 tons. The values of the imports and exports of the Colony per ton are about the same in the case of Great Britain alone. In every other case, as will be seen from the following statement, the import value per ton is much higher than the export.

No. 122.—Value per ton measurement of the Imports and Exports of the Colony, for the undermentioned countries :—

| Country. | Value of imports per ton. | | | Value of exports per ton. | | |
|---|---|---|---|---|---|---|
| | £ | s. | d. | £ | s. | d. |
| Great Britain | 26 | 8 | 10 | 26 | 16 | 2 |
| Victoria | 4 | 3 | 4 | 1 | 18 | 2 |
| South Australia | 3 | 15 | 8 | 2 | 2 | 1 |
| Tasmania | 9 | 11 | 7 | 2 | 13 | 3 |
| New Zealand | 7 | 17 | 8 | 2 | 17 | 6 |
| Queensland | 8 | 1 | 6 | 5 | 2 | 3 |
| Other British possessions | 6 | 5 | 9 | 3 | 3 | 2 |
| United States | 10 | 7 | 4 | 2 | 1 | 5 |
| Other Foreign countries | 7 | 8 | 5 | 2 | 3 | 3 |

**Trade with various countries compared.**

Having regard merely to the tonnage, the trade of the Colony with Victoria, is larger than with any other country, Great Britain not excepted, though it will be presently seen that in respect to value the latter country stands first. After Victoria and Great Britain, come Queensland, New Zealand, South Australia, and Tasmania, in the order named. Of foreign countries, the United States stand first, France and her dependencies being the most important of the other countries. The tonnage of vessels arriving from Great Britain during 1886 amounted to only 22·5 per cent. of the total tonnage inwards, though the value of freight carried amounted to not less than 54·2 per cent. of the imports. The tonnage arriving from the various Australian Colonies was 57·4 per cent. of the whole, with a value, however, of only 31·3̇ per cent. From the other possessions of Great Britain there was an import tonnage equal to 5 per cent., valued at 3·23 per cent. of the total imports. The United States and other foreign countries gave a little more than 12 per cent. of the tonnage inward, valued at slightly more than the same per-centage.

**nnage of ports to eat Britain.**

Of the tonnage of New South Wales exports, Great Britain took scarcely more than 10 per cent., though in value the exports were 52·56 per cent. of the total. The exports by sea to Victoria and the other Australasian Colonies, amounted to 56·20 per cent. of the whole, while in value they reached only 29·66 per cent. As regards the other British possessions, the tonnage of vessels carrying goods from New South Wales to their ports amounted to 8·62 per cent. of the whole, but the value reached only 4·99 per cent. Similarly with the United States and other foreign States, though the tonnage reached 12·43 and 12·06 per cent. the value was but 4·54 and 8·25 per cent. respectively. The following table shows the tonnage inward and outward from Great Britain and the Colonies, and to the United States, as well as the value of the cargoes; but it must be borne in mind that the tonnage figures represent the nominal tonnage of the vessels carrying the goods, and not the actual weight of the goods themselves, which latter information it is impossible to obtain.

No. 123.—Tonnage of Vessels and Value of Cargoes from and to the undermentioned countries, during 1886 :—

| Country. | Inwards. | | | | Outwards. | | | |
|---|---|---|---|---|---|---|---|---|
| | Tonnage. | | Value. | | Tonnage. | | Value. | |
| | Total. | Per cent. | Total. | Per cent. | Total. | Per cent. | Total. | Per cent. |
| | | | £ | | | | £ | |
| Great Britain ...... | 395,063 | 22·57 | 10,445,980 | 54·20 | 224,750 | 10·69 | 6,026,954 | 52·56 |
| Victoria............ | 459,338 | 26·24 | 1,915,020 | 9·94 | 607,342 | 28·87 | 1,159,794 | 10·12 |
| South Australia .... | 102,012 | 5·83 | 386,140 | 2·00 | 89,966 | 4·28 | 189,427 | 1·65 |
| Tasmania .......... | 63,329 | 3·62 | 606,740 | 3·15 | 41,567 | 1·98 | 110,776 | 0·98 |
| New Zealand ...... | 110,432 | 6·30 | 949,567 | 4·93 | 148,589 | 7·06 | 427,640 | 3·73 |
| Queensland ........ | 270,558 | 15·45 | 2,185,563 | 11·34 | 294,590 | 14·01 | 1,511,740 | 13·18 |
| Other British possessions. ...... | 97,910 | 5·59 | 624,893 | 3·23 | 181,343 | 8·62 | 572,441 | 4·99 |
| United States ...... | 98,278 | 5·62 | 1,018,773 | 5·29 | 261,378 | 12·43 | 521,216 | 4·54 |
| Other foreign countries. .......... | 153,729 | 8·78 | 1,141,283 | 5·92 | 253,796 | 12·06 | 946,151 | 8·25 |
| Total ........ | 1,750,649 | 100·00 | 19,273,548 | 100·00 | 2,103,351 | 100·00 | 11,466,139 | 100·00 |

Average tonnage of vessels trading with N. S. Wales.

The average tonnage of vessels trading with the Colony has gradually increased since 1845; previously to that year transports formed so large a portion of the total tonnage as to swell the average considerably. The average tonnage per ship was as follows at each decennial period since 1825:—

| Year. | Average tonnage of vessels. |
|---|---|
| 1825 | 295 |
| 1835 | 246 |
| 1845 | 173 |
| 1855 | 306 |
| 1865 | 329 |
| 1875 | 463 |
| 1885 | 797 |
| 1886 | 783 |

Tonnage of British, Foreign, and Colonial vessels.

The tonnage for the years since 1876 has been separated into British, Foreign, and Colonial, and the average for each year will be found below. It will be seen that during the ten years the average tonnage of British vessels trading here has been increased 78 per cent., and foreign and colonial about 63 per cent.

| Year. | Average tonnage of vessels. | | | Year. | Average tonnage of vessels. | | |
|---|---|---|---|---|---|---|---|
| | British. | Foreign. | Colonial. | | British. | Foreign. | Colonial. |
| | Tons. | Tons. | Tons. | | Tons. | Tons. | Tons. |
| 1876 | 746 | 592 | 382 | 1882 | 1,067 | 787 | 533 |
| 1877 | 881 | 689 | 376 | 1883 | 1,060 | 982 | 594 |
| 1878 | 796 | 706 | 406 | 1884 | 1,146 | 973 | 611 |
| 1879 | 805 | 701 | 433 | 1885 | 1,312 | 997 | 602 |
| 1880 | 1,031 | 732 | 476 | 1886 | 1,329 | 986 | 600 |
| 1881 | 1,105 | 780 | 498 | | | | |

Decrease in hands required per ton.

The natural corollary to the increase in the size of ships is the decrease in the number of hands required per ton, though the actual number of hands employed per vessel has increased. Inter-

Average crews carried.

colonial vessels carry an average of 23 men to every vessel, or 1 man to every 23 tons. British vessels carried in 1886 an average complement of 45 men, or 1 man to every 27·3 tons, while foreign ships carried an average crew of 39 men, or one man to every 25 tons. In 1876 British ships carried 1 man to every 25 tons, intercolonial vessels 1 man to every 22½ tons, and foreign vessels 1 man to 35 tons, the decrease in the tonnage per sailor in foreign vessels being due to the finer class of ships that began to trade here in 1883, which are fitted in the most modern fashion, and manned accordingly.

| Year. | Average crews of vessels. | | | Year. | Average crews of vessels. | | |
|---|---|---|---|---|---|---|---|
| | British. | Foreign. | Colonial. | | British. | Foreign. | Colonial. |
| 1876 | 30 | 17 | 17 | 1882 | 35 | 18 | 22 |
| 1877 | 33 | 21 | 18 | 1883 | 37 | 38 | 24 |
| 1878 | 28 | 20 | 18 | 1884 | 41 | 36 | 25 |
| 1879 | 30 | 23 | 19 | 1885 | 44 | 36 | 24 |
| 1880 | 44 | 25 | 21 | 1886 | 45 | 39 | 23 |
| 1881 | 40 | 23 | 22 | | | | |

Comparison of Australian ports.

As illustrating the importance of the various ports of Australia, the following table has been prepared, and from it the rank of Sydney becomes at once evident on inspection. Melbourne takes a second place, but, as will be hereafter pointed out, its trade for purposes of comparison should be reduced by a considerable tonnage, representing vessels, whose terminal port is Sydney, making it merely a port of call. Newcastle comes next after Melbourne, exceeding in tonnage even Brisbane. It should be noted in respect to Queensland ports, that the same vessel is reckoned at every port it calls at, and on this account the towns north of Brisbane appear more important than they really are.

No. 124.—Tonnage entered and cleared at the principal Australasian ports :—

| Port. | Entered. | Cleared. |
|---|---|---|
| | Tons. | Tons. |
| Sydney | 1,638,802 | 1,399,545 |
| Newcastle | 416,518 | 686,179 |
| Melbourne | 1,513,564 | 1,486,378 |
| Brisbane | 424,235 | 421,898 |
| Rockhampton | 223,565 | 192,464 |
| Townsville | 252,535 | 216,233 |
| Auckland | 166,490 | 141,050 |
| Wellington | 102,406 | 119,343 |
| Lyttelton | 44,903 | 69,402 |
| Dunedin | 96,703 | 30,917 |
| Hobart | 342,745 | 203,639 |
| Launceston | 96,554 | 101,781 |
| Port Adelaide | 629,682 | 567,553 |
| Glenelg | 121,882 | 120,679 |

The progress of the shipping trade of Sydney has been very uniform, increasing at an average rate of 10·7 per cent. per annum.

Tonnage entered at Sydney exceeds clearances.

The vessels entering, as a rule, considerably exceed those clearing; this difference is caused by vessels leaving Sydney for Newcastle for the purpose of shipping coal being reckoned as departures from Newcastle, and not from Sydney. On this account, the clearances of Newcastle uniformly exceed the arrivals, as will be noticed in the subsequent table.

The practice of clearing vessels at both ports at one time obtained, but has been abandoned for some years, and vessels are now cleared at the port which they last leave.

No. 125.—Tonnage of Vessels entered and cleared at Sydney and Newcastle, 1871–86:—

| Year. | Sydney. | | Newcastle. | |
|---|---|---|---|---|
| | Entered. | Cleared. | Entered. | Cleared. |
| | Tons. | Tons. | Tons. | Tons. |
| 1871 | 409,063 | 394,289 | 277,959 | 376,378 |
| 1872 | 418,164 | 360,735 | 342,514 | 427,845 |
| 1873 | 474,203 | 367,351 | 389,121 | 498,468 |
| 1874 | 499,326 | 422,693 | 510,291 | 543,693 |
| 1875 | 590,700 | 468,423 | 510,902 | 573,626 |
| 1876 | 635,269 | 502,866 | 433,423 | 535,738 |
| 1877 | 662,217 | 511,623 | 469,349 | 577,676 |
| 1878 | 712,303 | 511,801 | 542,745 | 665,885 |
| 1879 | 759,980 | 581,694 | 492,163 | 651,501 |
| 1880 | 827,738 | 641,996 | 400,598 | 516,480 |
| 1881 | 955,531 | 655,161 | 481,695 | 645,543 |
| 1882 | 1,101,756 | 844,677 | 559,228 | 737,772 |
| 1883 | 1,260,595 | 1,115,411 | 656,916 | 926,956 |
| 1884 | 1,554,118 | 1,277,843 | 708,449 | 1,066,462 |
| 1885 | 1,608,169 | 1,283,888 | 452,946 | 722,865 |
| 1886 | 1,638,802 | 1,399,545 | 416,518 | 686,179 |

Trade of Sydney compared with British ports.

The comparative importance of the trade of the port of Sydney may be seen from viewing it in connection with the trade of the chief cities of Great Britain. It will be seen that in absolute tonnage Sydney was surpassed by four English ports—London, Liverpool, Cardiff, and Newcastle—though, in point of value, the trade of Sydney exceeded that of any port in Great Britain, London and Liverpool alone excepted. Thirteen of the most important ports of Great Britain and Ireland are shown on table No. 123. The figures are for 1885 for British ports, and for 1886 for Sydney.

No. 126.—Tonnage Inwards and Outwards of the principal ports of Great Britain, also of the port of Sydney:—

| Port. | Tonnage inwards. | Tonnage outwards. |
|---|---|---|
| London | 6,902,655 | 5,146,482 |
| Liverpool | 5,173,330 | 4,822,021 |
| Cardiff | 2,381,606 | 4,567,662 |
| Newcastle (England) | 1,858,795 | 3,296,262 |
| Sydney | 1,638,802 | 1 399,545 |
| Hull | 1,651,648 | 1,343,725 |
| Glasgow | 922,927 | 1,385,574 |
| Newport | 840,269 | 1,160,723 |
| Southampton | 911,172 | 822,515 |
| Sunderland | 786,019 | 971,344 |
| Swansea | 540,353 | 767,785 |
| Dover | 581,074 | 562,949 |
| Bristol | 587,125 | 238,123 |
| Dublin | 282,643 | 75,760 |

Sydney chief shipping port.

Sydney is not only the metropolis, but the chief shipping port of the Colony, her trade being larger than that of any city of the southern hemisphere. The nominal trade of Melbourne appears almost as large, but as that city is a place of call for various lines of steamers, whose terminal port, and the destination of the greater part of whose cargo, is Sydney, the shipping trade of Melbourne is unduly swollen, and its relative importance compared with Sydney appears greater than really is the case. Newcastle ranks second amongst New South Wales ports, and for many years previous to 1880 its trade was greater than that of even Sydney itself. Since the year named, however, the tonnage both entered and cleared at Sydney has exceeded that of Newcastle. No other seaport has much more than a coasting trade, though for some time Wollongong has maintained a considerable trade, especially in coal; and of late years the importance of Grafton, on the Clarence River, has steadily increased.

Murray and Darling trade.

The statistics of the trade of the Murray and Darling River ports were available for the first time in 1886, during which year the foreign trade was by no means inconsiderable. During this year the Darling River was navigable, after being too low for traffic for some years, and the figures set down opposite Wentworth for the most part represent Darling trade, while the others refer to the Murray River. No tonnage inward appears for Swan Hill and Tocumwal, this amount being credited to Moama, which was the first port of call.

No. 127.—Trade at Riverine ports, 1886 :—

| Port. | Tonnage inwards. | Tonnage outwards. |
|---|---|---|
| Wentworth | 25,366 | 26,174 |
| Moama | 17,432 | 200 |
| Swan Hill | * | 8,792 |
| Tocumwal | * | 696 |
| Total | 42,798 | 35,862 |

* Included in Moama.

Number of vessels registered.

During the year 1886, 988 steamers and sailing vessels, representing 113,459 tons net, stood registered in the books of the Custom House, as belonging to the port of Sydney. Of these, 405 are steamers, collectively of 48,452 net tons and of 16,749 nominal horse-power.

Principal navigation companies in N. S. Wales.

Thirty-five of the steamers, collectively of 28,748 gross and 16,712 net tons, excluding lighters and steam launches, and 4,717 nominal horse-power, were owned by the former Australasian Steam Navigation Company, trading to all the principal ports of Queensland, extending into the Gulf of Carpentaria, and Noumea, Fiji, Melbourne, and Adelaide, and embracing five mail contracts.

The Clarence and Richmond River Steam Company register twelve steamers of 580 combined horse-power and 1,976 net tons. six of them are sea-going and six river steamers. The vessels of this company are employed exclusively in the Clarence, Macleay, and Richmond rivers trade.

The Illawarra Steam Navigation Company, trading to all New South Wales ports south of Sydney, own twelve sea and river steamers, representing 1,874 net tons and 811 nominal horse-power.

Hunter River trade.

The trade from the Hunter River and Newcastle for passengers and freight, other than coal, is carried on by the steamers of the Hunter River New Steam Navigation Company and the Newcastle Steamship Company. The first named company own two river and five sea steamers, collectively of 2,563 net tons, and 1,020 horse-power, registered in Sydney. The steamers of the latter company (five sea and one river) of 2,510 net tons and 1,250 horse-power, are registered at the port of Newcastle, and are not included in the above summary.

The Port Jackson Steamboat Company own eight passenger and tug steamers, of 723 horse-power and 847 net tons collectively.

The Colonial Sugar Company register nine ocean and river steamers, of 562 nominal horse-power and 1,077 net tons, wholly employed in connection with the company's sugar works at the Clarence, Richmond, and Tweed Rivers, and trading from Sydney to Fiji.

Included in the list of registered steamers are those employed in the coal trade by Messrs. J. and A. Brown, the Bulli, Wallsend, Mount Kembla, and Waratah Coal Companies, and in the various passenger trades of the harbour and its branches—such as the Parramatta River steamers, the North Shore Ferry Company, the Lane Cove, Balmain, Mossman's Bay, and Pyrmont boats, the Watson's Bay steamers, and the combined passenger and tug steamers of Messrs. Waterhouse, Halstead, Byrnes, and others.

Private firms owning steamers.

Besides the steam companies just referred to, there are several private firms having steamers trading out of Sydney. Messrs. John See & Co. own seven steamers plying to the Clarence, Manning, Hastings, and Bellinger Rivers, and also seven droghing vessels. Messrs. G. & B. Nicoll have two steamers engaged in the Richmond River trade, and Mr. D. Berry owns a steamer trading to Shoalhaven, and the Shellharbour Company own one steamer plying to Shellharbour.

The large ocean steamers of the Union Company of New Zealand, the Tasmanian Steam Navigation Co., and (with the exception of five) Messrs. W. Howard Smith and Co.'s fleet, not being registered in Sydney, are not included in the above summary, although trading out of the port.

**Value of tonnage registered in New South Wales.**

Part of the tonnage registered is that of vessels built in the Colony. The remainder may be fairly taken as a direct addition to the colonial fleet, and classed among the imports of the Colony. The value of this import may be gathered from the figures given below. In estimating the value of the vessels imported approximate figures can alone be given. The value per ton of the British mercantile fleet averages about £30 for steamers and £15 for sailing vessels, but in this Colony these figures would be somewhat lower, and for the purpose of the estimate which follows, the average value of steam tonnage has been taken at £25, and sailing vessels at £12 10s. It is possible the figures do not give the entire import, as there are not a few vessels imported which are registered at the place of building.

No. 128.—Value of Foreign Tonnage Registered in New South Wales in each year, 1876–86 :—

| Year. | Tonnage. | | Value. | Year | Tonnage. | | Value. |
|---|---|---|---|---|---|---|---|
| | Sailing. | Steam. | | | Sailing. | Steam. | |
| | | | £ | | | | £ |
| 1876 | 7,457 | 1,598 | 133,162 | 1882 | 12,788 | 4,488 | 272,050 |
| 1877 | 4,469 | 2,616 | 121,262 | 1883 | 8,681 | 4,038 | 209,462 |
| 1878 | 5,329 | 3,732 | 159,912 | 1884 | 8,332 | 6,339 | 262,625 |
| 1879 | 4,332 | 2,764 | 123,250 | 1885 | 4,076 | 3,395 | 135,825 |
| 1880 | 5,065 | 1,298 | 95,762 | 1886 | 4,630 | 852 | 79,175 |
| 1881 | 9,558 | 1,948 | 168,175 | | | | |

Shipbuilding record.

The building of steam vessels has become far more important than that of sailing ships, the tonnage during the last five years being respectively, 19,418 of steam tonnage, and 8,000 tons of sailing. Schooners and ketches are the principal classes of sailing vessels built in the Colony, the general tonnage of each class averaging considerably under 100 tons burden.

No reliable data have as yet been procurable as to the number and tonnage of vessels built in other places for the New South Wales local trade, but that number must be considerable, and forms an import of large value altogether lost sight of in the Customs returns. Some idea, however, of the large number of vessels imported may be gathered from the tonnage registered, which will be found in the preceding table. The total tonnage registered was :—

No. 129.—Vessels Registered in New South Wales, 1876-86.

| Year. | Sailing vessels. | | | Steamers. | | | Total No. | Total tons. | Total men. |
|---|---|---|---|---|---|---|---|---|---|
| | No. | Tons. | Men. | No. | Tons. | Men. | | | |
| 1876 | 64 | 9,523 | 377 | 31 | 2,997 | 193 | 95 | 12,520 | 570 |
| 1877 | 67 | 6,464 | 333 | 36 | 5,131 | 262 | 103 | 11,595 | 595 |
| 1878 | 55 | 7,111 | 319 | 41 | 5,392 | 278 | 96 | 12,503 | 597 |
| 1879 | 54 | 5,870 | 281 | 36 | 3,561 | 291 | 90 | 9,431 | 572 |
| 1880 | 54 | 7,003 | 325 | 20 | 2,159 | 168 | 74 | 9,162 | 493 |
| 1881 | 51 | 10.300 | 328 | 23 | 2,713 | 115 | 74 | 13,013 | 443 |
| 1882 | 87 | 14,246 | 511 | 41 | 7,764 | 509 | 128 | 22,010 | 1,020 |
| 1883 | 83 | 10.566 | 420 | 72 | 9,406 | 575 | 155 | 19,972 | 995 |
| 1884 | 77 | 10,850 | 507 | 84 | 11,484 | 701 | 161 | 22,334 | 1,214 |
| 1885 | 49 | 4,876 | 280 | 50 | 6,387 | 394 | 99 | 11,263 | 674 |
| 1886 | 45 | 5,969 | 166 | 47 | 3,489 | 235 | 92 | 9,458 | 401 |

Tendency to supplant sailing by steam.

The general tendency to supplant sailing vessels by steam, and the substitution of iron for wood for the frames and hulls of vessels, have given a check to the wooden ship-building industry, which at one time promised to grow to important dimensions. Every kind of timber suitable for the construction of ships is found on the rivers of the coast districts of the Colony, but as the demand for this description of vessel has not increased little advantage can be taken of our resources in this respect.

Vessels built in the Colony.

The years 1883 and 1884 were marked by great activity in the construction both of sailing and steam vessels, fifty sailing and fifty-two steam vessels, valued at about £162,500, having been built in 1883, whilst thirty-nine sailing vessels and fifty-two steamers, valued at £155,000, were built in the subsequent year. Trade has not been so active since, though in 1886 the value of steamers built was £66,000, and of sailing vessels £20,000, or £86,000 value in all. The number of vessels built during each year since 1876 is given below.

No. 130.—Vessels—Steam and Sailing—built in New South Wales during each year, 1876-86:—

| Year. | Sailing vessels. | | Steamers. | | Total vessels. | Total tonnage. |
|---|---|---|---|---|---|---|
| | No. | Tons. | No. | Tons. | | |
| 1876 | 38 | 2,066 | 22 | 1,399 | 60 | 3,465 |
| 1877 | 34 | 1,995 | 27 | 2,515 | 61 | 4,510 |
| 1878 | 23 | 1,782 | 26 | 1,660 | 49 | 3,442 |
| 1879 | 31 | 1,538 | 19 | 797 | 50 | 2,335 |
| 1880 | 29 | 1,938 | 12 | 861 | 41 | 2,799 |
| 1881 | 16 | 742 | 15 | 765 | 31 | 1,507 |
| 1882 | 41 | 1,458 | 24 | 3,276 | 65 | 4,734 |
| 1883 | 50 | 1,885 | 52 | 5,368 | 102 | 7,253 |
| 1884 | 39 | 2,518 | 64 | 5,145 | 103 | 7,663 |
| 1885 | 29 | 800 | 36 | 2,992 | 65 | 3,792 |
| 1886 | 27 | 1,339 | 40 | 2,637 | 67 | 3,976 |

Dock accommodation in Sydney.

The accommodation provided both by the Government and by private enterprise for the fitting and repairing of ships, is equal to the requirement of the trade of the Colony. At Sydney there are three graving docks, two floating docks, and seven patent slips. At Newcastle there is one patent slip, besides which there are other docking and building yards in different parts of the Colony for the convenience of coasters and small craft. The principal docks and slips in Sydney are shown on the following table, as well as their leading dimensions and size of vessel they will carry.

No. 131.—Docks and Slips in Sydney Harbour :—

| Name of dock. | Where situated. | Length of keel. | Breadth | Draught of vessel taken. | Lifting power of patent slip or dock. |
|---|---|---|---|---|---|
| Graving docks— | | ft. | ft. | ft. in. | tons. |
| Fitzroy (Government) ... | Cockatoo Island ... | 475 | 59 | 20 6 | ... |
| Biloela ,, ... | ,, ... | 635 | 84 | 32 0 | ... |
| Mort's ...................... | Balmain ............ | 410 | 68 | 20 0 | ... |
| Floating docks— | | | | | |
| Anderson's ................ | Johnston's Bay ... | 100 | 23 | 7 0 | 150 |
| Rountree's ................ | Waterview Bay ... | 164 | 42 | 12 0 | 600 |
| Patent slips— | | | | | |
| A. S. N. Company's...... | Pyrmont ............ | 430 | 37 | ... | 1,500 |
| Atlas Company's ......... | Woolwich............ | ... | ... | ... | 2,000 |
| Bayle's ..................... | Balmain ............ | ... | ... | ... | ... |
| Davy and Sands' ......... | Pyrmont ............ | 180 | ... | ... | 600 |
| Mort's No. 1. ........... | Balmain ............ | 250 | ... | ... | 1,500 |
| ,, ,, 2 ........... | ,, ............ | 200 | ... | ... | 1,000 |
| ,, ,, 3 ........... | ,, ............ | ... | ... | ... | 40 |

New graving dock.

All the necessary tools and appliances for the repairing of ships are found in the dockyards. The new graving dock now being completed by the Government will be the largest single dock in the world, and capable of receiving vessels drawing 32 feet of water. For natural facilities for shipping Sydney stands unrivalled. The water deepens abruptly from the shores, so that the largest ships may be berthed alongside the wharves and quays.

The wharfage is chiefly in private hands, and powerful shipping appliances and roomy stores are found at all the important wharves. The Government still holds the shores of Sydney Cove, along the margin of which magnificent echelon wharves have been constructed. The south and west side of Darling Harbour also belongs to the Government, and the railway has been carried to the water's edge. The total wharf frontage amounts to about 6 miles.

Equipment of the Port of Newcastle.

Newcastle is also a well-equipped port, where vessels of 4,000 tons can be safely berthed; and every modern steam and hydraulic appliance for loading coal is found on its wharves. The Government owns nearly all the wharfage, which extends over a length of about 15,000 feet. The Government shipping appliances include four steam cranes, of 15 tons, and twelve hydraulic cranes, two of 25 tons, six of 15 tons, and four of 9 tons.

Private wharves.

Private wharves are found at all the chief centres of population along the rivers of the Colony, as well as Government wharves, and all ports with a trade of any importance have also their jetties and shipping facilities.

Vessels wrecked during 1886.

The New South Wales coast is free from any source of danger to vessels navigating it, and where reasonable precautions were taken wrecks have been very rare. The majority of losses have been amongst vessels of under 100 tons burthen. Nevertheless the number of wrecks and loss of life and property during 1886 has been very high, amounting to twenty-three vessels, with a total tonnage of 5,401, valued at £419,180, including cargo, and involving a considerable loss of life. This, perhaps, is the most disastrous record ever experienced. Three steamers of large size were wrecked during the year—the "Ly-ee-Moon," 745 tons, which struck on Green Cape, involving a loss of £25,000; the "Corangamite," 1,562 tons, which went ashore in Wreck Bay during a fog, the loss of cargo and vessel being £35,000; and the "Keilawarra," 784 tons, sunk by coming into collision with the "Helen Nicol," the vessel and cargo being valued at £25,000. The number of wrecks since 1880 is shown below.

Losses since 1880.

No. 132.—Vessels, Registered in various ports of Australia, Tasmania, and New Zealand, Lost on the coast of New South Wales from 1880–86:—

| Year. | Under 50 tons. | 50 to 100. | 100 to 200. | 200 to 300. | 300 to 400. | 400 to 500. | Over 500 tons. | Total. |
|---|---|---|---|---|---|---|---|---|
| 1880 | 7 | 2 | 3 | ... | ... | ... | 2 | 14 |
| 1881 | 6 | 1 | 1 | 3 | 1 | ... | 1 | 13 |
| 1882 | 5 | 4 | 2 | 1 | 1 | 1 | 1 | 15 |
| 1883 | 2 | 6 | 3 | 1 | ... | ... | ... | 12 |
| 1884 | 6 | 3 | 1 | ... | ... | ... | 1 | 11 |
| 1885 | 3 | 4 | 1 | 1 | 1 | ... | 1 | 11 |
| 1886 | 6 | 5 | 7 | 1 | 1 | ... | 3 | 23 |

## *IMPORTS AND EXPORTS.*

Exports an index of production.

The value of goods imported into, and exported from New South Wales, has increased during the sixty years over which the records extend, from £400,000 in 1825 to £40,487,568 in 1885, and £36,529,761 in 1886. The yearly values have been somewhat uncertain in their increase, the imports from 1840 to 1852 being especially erratic, but of late years the progress of the Colony, as evidenced by its trade, has been remarkably steady. The gross value from year to year of the exports, for the reasons hereafter pointed out, forms the surest index of the progress of a country circumstanced like New South Wales, and the result of a rise or fall in the value of the staple commodities, or of a depression in production, may be readily traced in the corresponding rise or fall in the export values. The amount of the trade of the Colony, in decennial periods since 1825, is given below.

No. 133.—Value of Imports and Exports of New South Wales, 1825–86 :—

| Year. | Imports. | Exports. | Total Trade. |
|---|---|---|---|
| | £ | £ | £ |
| 1825 | 300,000 | 100,000 | 400,000 |
| 1835 | 1,114,805 | 682,193 | 1,796,998 |
| 1845 | 1,233,854 | 1,555,986 | 2,789,840 |
| 1855 | 4,668,519 | 2,884,130 | 7,552,649 |
| 1865 | 10,635,507 | 9,563,818 | 20,199,325 |
| 1875 | 13,735,133 | 13,797,397 | 27,532,530 |
| 1885 | 23,737,461 | 16,750,107 | 40,487,568 |
| 1886 | 20,973,548 | 15,556,213 | 36,529,761 |

Imports exceed exports.

The imports have, for many years, invariably exceeded the exports. This circumstance is mainly due to the importation of loan money for the development of the natural resources of the country. The extent of this importation, as well as the excess of

Influence of loan expenditure on imports.

the imports during each of the last ten years, is shown in the following table, but the whole question will be found dealt with in another place:—

No. 134.—Excess of Imports compared with Loan expenditure.

| Year. | Excess of imports over exports. | Amount expended from loans during the year. |
|---|---|---|
| | £ | £ |
| 1877 | 1,394,878 | 995,454 |
| 1878 | 1,970,240 | 816,317 |
| 1879 | 1,371,895 | 1,271,705 |
| 1880 | *1,506,739 | 1,668,619 |
| 1881 | 1,279,207 | 2,397,368 |
| 1882 | 3,790,544 | 2,832,759 |
| 1883 | 1,260,568 | 3,265,711 |
| 1884 | 4,583,626 | 3,674,707 |
| 1885 | 6,987,354 | 3,896,145 |
| 1886 | 5,417,335 | 3,766,356 |
| Total for 10 years ... | 26,548,908 | 24,585,141 |

* Excess of exports.

## *IMPORTS.*

The value of the imports during each year, from 1860 to 1886, is given in the appendix. During 1886 the gross value of goods imported into the Colony amounted to £20,973,548, or at the rate of £21 7s. 10d. per head, the imports for home consumption were valued at £18,301,585, or £18 13s. 4d. per head of the mean population during the year, thus showing a falling off from the previous year of £4 2s. 2d. per head of gross imports and £2 19s. 9d. per head of net imports. The falling off is due to a decline in the value of the exports for the two years 1885 and 1886, owing to the severe depression, which seems to have been general, and to the bad season, which affected this Colony in particular. The value of the imports, distinguishing the amount for home consumption, is given in the annexed table for the sixteen years 1871–1886.

Decline in value of imports

No. 135.—Value of Imports per head :—

| Year. | Imports for home consumption. | Total imports per head. | Year. | Imports for home consumption. | Total imports per head. |
|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | | £ s. d. | £ s. d. |
| 1871 | 17 10 6 | 21 10 3 | 1879 | 17 3 1 | 21 0 0 |
| 1872 | 13 12 2 | 18 3 5 | 1880 | 15 12 2 | 19 10 7 |
| 1873 | 15 12 10 | 20 2 7 | 1881 | 18 19 9 | 23 2 8 |
| 1874 | 17 15 9 | 21 12 8 | 1882 | 22 2 0 | 27 0 3 |
| 1875 | 19 14 10 | 23 9 11 | 1883 | 21 5 11 | 25 15 11 |
| 1876 | 19 0 11 | 22 16 9 | 1884 | 22 2 11 | 26 5 11 |
| 1877 | 19 15 5 | 23 12 4 | 1885 | 21 13 1 | 25 10 0 |
| 1878 | 19 10 11 | 22 19 3 | 1886 | 18 13 4 | 21 7 10 |

Classification of imports.

For the purpose of more readily understanding the nature of the imports they have been classified under certain leading heads, and during 1886 the value of each class of imports was :—

| | Total Imports. | Imported for home consumption. |
|---|---|---|
| Food and beverages, including breadstuffs ...... | £3,308,673 | £2,895,496 |
| Wines, fermented and spirituous liquors ........ | 1,015,998 | 908,255 |
| Live stock.............................................. | 702,169 | 627,089 |
| Animal and vegetable products, including wool | 2,074,785 | 1,661,217 |
| Clothing and textile fabrics ............................ | 4,190,766 | 3,827,307 |
| Minerals and metals, raw or partly worked up... | 1,007,600 | 581,922 |
| Coal ...................................................... | 94,522 | 94,522 |
| Specie and precious metals ........................... | 1,675,967 | 1,662,371 |
| Articles of education, art, amusement ............ | 1,309,152 | 1,146,627 |
| Manufactured articles not elsewhere included... | 5,483,498 | 4,821,050 |
| Articles unclassified by Customs..................... | 110,418 | 75,679 |
| £ | 20,973,548 | 18,301,535 |

Rate of imports per head.

During 1886, therefore, the Colony imported food and drink to the value of £3,803,751, or at the rate of £3 17s. 6d. for each inhabitant, and manufactured goods to the amount of £9,870,663, or slightly over £10 per head, both together representing £13 17s. 8d. per head, out of a total of £18 13s. 4d. The two principal items of the balance are animal and vegetable products, specie and minerals. Of the animal and vegetable products, as also of the minerals, a large portion are worked up in the Colony for its own consumption, but the greater portion of the gold imported is treated at the Mint, and is re-exported in the shape of coin. The value per head of some of the principal articles imported is given below.

No. 136.—Value of Imports per Head of the Principal Articles :—

| Articles. | 1876. | | 1877. | | 1878. | | 1879. | | 1880. | | 1881. | | 1882. | | 1883. | | 1884. | | 1885. | | 1886. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. |
| Agricultural implements | 0 | 6 | 0 | 11 | 1 | 3 | 1 | 3 | 0 | 9 | 1 | 1 | 1 | 8 | 2 | 6 | 1 | 9 | 1 | 3 | 1 | 0 |
| *Apparel—wearing | 16 | 1 | 11 | 4 | 17 | 7 | 12 | 3 | 7 | 0 | 8 | 0 | 8 | 5 | 7 | 4 | 18 | 4 | 19 | 7 | 25 | 2 |
| Beer | 5 | 7 | 6 | 0 | 5 | 4 | 6 | 5 | 4 | 3 | 4 | 0 | 5 | 3 | 6 | 3 | 6 | 9 | 7 | 8 | 7 | 11 |
| Butter | 1 | 5 | 1 | 1 | 0 | 7 | 0 | 2 | 0 | 2 | 0 | 9 | 2 | 1 | 1 | 11 | 3 | 1 | 2 | 2 | 3 | 0 |
| Candles | 1 | 8 | 3 | 2 | 2 | 0 | 1 | 10 | 0 | 8 | 1 | 10 | 3 | 0 | 1 | 6 | 3 | 8 | 3 | 2 | 1 | 6 |
| Drapery | 59 | 1 | 71 | 4 | 72 | 4 | 62 | 6 | 60 | 8 | 78 | 6 | 91 | 6 | 82 | 10 | 63 | 2 | 64 | 4 | 52 | 4 |
| Earthenware and glassware | 3 | 4 | 2 | 8 | 2 | 0 | 3 | 8 | 2 | 8 | 3 | 4 | 4 | 3 | 4 | 0 | 4 | 8 | 5 | 2 | 3 | 5 |
| Fish—salt, dried, and preserved | 2 | 0 | 4 | 0 | 6 | 6 | 1 | 9 | 1 | 3 | 2 | 11 | 2 | 7 | 3 | 6 | 3 | 4 | 1 | 10 | 1 | 6 |
| Flour | 8 | 8 | 8 | 6 | 11 | 1 | 8 | 3 | 9 | 6 | 5 | 0 | 11 | 2 | 7 | 6 | 8 | 4 | 9 | 8 | 12 | 0 |
| Fruit | 3 | 5 | 4 | 2 | 3 | 6 | 2 | 7 | 3 | 4 | 5 | 0 | 4 | 8 | 4 | 11 | 5 | 11 | 5 | 3 | 5 | 4 |
| Furniture | 2 | 5 | 2 | 10 | 3 | 9 | 2 | 9 | 1 | 8 | 3 | 4 | 4 | 9 | 5 | 2 | 4 | 1 | 4 | 1 | 5 | 1 |
| Grain and pulse | 8 | 9 | 9 | 8 | 7 | 7 | 4 | 7 | 4 | 3 | 3 | 4 | 9 | 9 | 4 | 9 | 9 | 1 | 7 | 5 | 8 | 11 |
| Hardware | 8 | 8 | 8 | 1 | 11 | 6 | 11 | 11 | 7 | 11 | 11 | 9 | 15 | 6 | 15 | 8 | 13 | 3 | 11 | 5 | 10 | 11 |
| Hay and chaff | 1 | 4 | 3 | 0 | 0 | 4 | 0 | 7 | 1 | 7 | 1 | 9 | 3 | 9 | 2 | 11 | 3 | 9 | 2 | 0 | 4 | 4 |
| Iron and steel | 8 | 2 | 18 | 10 | 18 | 7 | 13 | 2 | 13 | 11 | 13 | 8 | 22 | 10 | 18 | 7 | 18 | 11 | 24 | 0 | 15 | 6 |
| Boots and shoes | 7 | 6 | 8 | 11 | 7 | 8 | 10 | 3 | 8 | 5 | 9 | 5 | 12 | 11 | 11 | 3 | 10 | 3 | 11 | 7 | 10 | 3 |
| Liquors—spirit | 9 | 0 | 12 | 10 | 10 | 11 | 12 | 0 | 10 | 0 | 12 | 2 | 11 | 8 | 10 | 7 | 12 | 0 | 10 | 4 | 8 | 9 |
| Machinery | 4 | 0 | 8 | 0 | 5 | 2 | 5 | 10 | 3 | 9 | 5 | 9 | 7 | 11 | 9 | 11 | 10 | 6 | 8 | 9 | 5 | 7 |
| Potatoes | 3 | 8 | 4 | 0 | 3 | 3 | 2 | 0 | 2 | 6 | 2 | 6 | 4 | 9 | 3 | 8 | 4 | 10 | 4 | 3 | 4 | 9 |
| Saddlery and harness | 2 | 0 | 2 | 1 | 1 | 6 | 1 | 7 | 1 | 4 | 1 | 6 | 1 | 11 | 2 | 0 | 1 | 6 | 1 | 2 | 1 | 0 |
| Stationery, paper, books, &c. | 9 | 8 | 15 | 4 | 11 | 0 | 9 | 11 | 8 | 4 | 11 | 1 | 11 | 6 | 9 | 7 | 11 | 3 | 11 | 6 | 10 | 2 |
| Sugar | 17 | 8 | 18 | 0 | 21 | 0 | 23 | 4 | 13 | 11 | 17 | 7 | 21 | 2 | 17 | 10 | 19 | 5 | 10 | 9 | 7 | 6 |
| Tea | 8 | 2 | 11 | 1 | 8 | 11 | 11 | 9 | 11 | 0 | 13 | 2 | 10 | 4 | 6 | 8 | 11 | 3 | 8 | 8 | 5 | 8 |
| Tobacco | 1 | 8 | 3 | 6 | 5 | 5 | 1 | 4 | 1 | 1 | 2 | 8 | 3 | 0 | 3 | 2 | 2 | 6 | 2 | 4 | 3 | 3 |
| Toys and fancy goods | 4 | 0 | 1 | 9 | 2 | 1 | 2 | 0 | 0 | 10 | 1 | 6 | 2 | 11 | 3 | 0 | 2 | 8 | 2 | 6 | 0 | 9 |
| Wine | 2 | 3 | 3 | 4 | 2 | 9 | 2 | 4 | 0 | 11 | 2 | 0 | 1 | 10 | 2 | 11 | 2 | 5 | 2 | 6 | 1 | 11 |

* The imports of Apparel should be taken in connection with the imports of Drapery.

The import of drapery stands first in the list of values, and if wearing apparel be added to it, the value of these goods would represent a sum of £3 17s. 6d. per head during 1886, the greatest amount for any one year having been in 1882, when the value imported reached almost £5 for every inhabitant. The value per head of iron and steel, machinery and hardware combined was £1 2s.; wine and liquors, 18s. 7d.; flour, 12s.; boots and shoes, 10s. 2d. None of the other values reach such large figures as those mentioned above, though many other articles form individually very important imports.

Scope for manufactures proved by large imports.

Two things are plain from a consideration of this table, the great purchasing power of the people and the very large scope that exists for the production of goods which are now imported, and for the extension of manufactures within the Colony. This will, perhaps, be seen more plainly from an inspection of the gross values of some of the principal articles imported during the year 1886.

No. 137.—Values of some of the Principal Articles Imported during 1886:—

| | | | |
|---|---|---|---|
| Apparel, wearing | £1,270,519 | Jewellery | £175,073 |
| Arms and ammunition | 143,784 | Leather | 67,710 |
| Beer | 419,454 | Malt | 149,866 |
| Boots and shoes | 582,313 | Matches | 66,226 |
| Butter | 159,536 | Military stores | 142,493 |
| Candles | 82,139 | Milk, condensed | 60,599 |
| Chaff and hay | 219,828 | Musical instruments | 111,586 |
| Cement | 229,566 | Paints, paperhanging, lampware | 125,998 |
| Cutlery and grindery | 87,203 | Paper, books, stationery, etc. | 579,057 |
| Drapery | 2,887,111 | Pickles, sauces, and oilmen's stores | 75,053 |
| Drugs and apothecaries' ware | 203,173 | Potatoes and vegetables | 282,033 |
| Fancy goods | 64,947 | Saddlery and harness and saddlers' ware | 102,069 |
| Fish, preserved | 102,991 | Silver plate and ware | 83,299 |
| Flour | 649,372 | Spirits | 492,553 |
| Fruit, bottled, dried, and green | 280,783 | Sugar | 484,638 |
| Furniture and upholstery | 356,541 | Tea | 311,547 |
| Glass and glassware | 113,751 | Timber | 448,466 |
| Grain and pulse | 472,761 | Tobacco and cigars | 220,896 |
| Hardware | 617,249 | Toys | 76,695 |
| Iron and iron manufactures and machinery | 1,114,043 | Watches and clocks | 134,331 |
| Jams and jellies | 73,101 | Wine | 109,680 |

### *EXPORTS.*

New South Wales exports larger than other Colonies.

The export trade of New South Wales, like the import, is larger than that of any other Australian colony, both in regard to the total value and the value per head of population. Compared with the imports generally, the exports, for the reasons which will hereafter appear, fall considerably short, but compared with those of other colonies the extent of the New South Wales export trade is very satisfactory. Taking the year 1886, the last for which all the figures are available, the export trade of the various colonies was :—

No. 138.—Export of Home produce from each of the Australasian Colonies during 1886.

| | £ |
|---|---|
| New South Wales | 12,884,200 |
| Victoria | 9,054,687 |
| Queensland | 4,813,092 |
| South Australia | 2,822,138 |
| New Zealand | 6,386,682 |
| Tasmania | 1,312,416 |
| Western Australia | 626,524 |

Large re-export trade of certain colonies.

There is a defect in the figures, as far at least as three of these colonies are concerned. New South Wales, Victoria, and South Australia have each a large re-export trade, especially in raw produce, and it frequently happens that credit is taken for the produce of other colonies in the export of home produce. So far as New South Wales is concerned, this over-crediting chiefly takes place in regard to gold received from Queensland for coinage. To what extent the Customs' value of home produce is overstated in Victoria and South Australia is not apparent from the returns; but in the case of the first named colony, much of the New South Wales produce passing through Victoria for transhipment to England is exported as Victorian produce. This is very noticeable in the case of wool, as Port Phillip wool commands a higher price than that of New South Wales. According to the Customs statistics of that colony, the quantity of wool imported during

1885 amounted to 54,685,900 lb., valued at £2,201,968, while the export of wool other than Victorian amounted to only 12,924,761 lb., valued at £599,831, the difference in value, amounting to over £1,600,000, being taken credit for as Victorian home produce, and the returns overstated to that extent. How far this system obtains in other directions it is impossible to say.

**Preponderance of home products in exports.**

Dividing the exports of New South Wales into two classes—those which are the produce and manufacture of the Colony, and those imported from other countries, the preponderance of home produce exported is very marked. The figures for the ten years that closed with 1886, which are given below, show a large increase in home produce exported, reaching a maximum in 1883, when the value was £16,506,122, falling, however, in the subsequent years, until in 1886 the amount reached only £12,884,200. This decline is to a great extent due to the fall in the price of wool during the years 1884 and 1885, and to the losses sustained by reason of the dry season of 1885–6. The exports of produce other than that of the Colony have also shown a decline during the year 1886 and the preceding years, and is to a large extent to be ascribed to the same causes, the decline being very noticeable in the value of wool and tin re-exported.

No. 139.—Value of the Exports of the Colony, distinguishing Home produce from Foreign produce Exported :—

| Year. | Home produce exported. | Foreign produce exported. | Total exports. |
|---|---|---|---|
| | £ | £ | £ |
| 1877 | 11,036,839 | 2,421,061 | 13,457,900 |
| 1878 | 10,885,037 | 2,249,368 | 13,134,405 |
| 1879 | 10,820,756 | 2,311,175 | 13,131,931 |
| 1880 | 12,837,446 | 2,845,356 | 15,682,802 |
| 1881 | 15,153,795 | 3,154,010 | 16,307,805 |
| 1882 | 14,168,853 | 3,508,502 | 17,677,355 |
| 1883 | 16,506,122 | 3,756,151 | 20,262,273 |
| 1884 | 14,921,520 | 3,655,770 | 18,577,290 |
| 1885 | 13,166,243 | 3,583,864 | 16,750,107 |
| 1886 | 12,884,200 | 2,672,013 | 15,556,213 |

Value of export trade declined since 1880.

It will be seen from the table given above that the value of New South Wales produce exported during 1886, was less than any year since 1880, and the value per head was less than for any year since 1871. The decrease in value per head has been very considerable since 1883. In the year mentioned the exports of home produce amounted to £19 15s. 9d., while those of 1886 had fallen to £13 3s. 1d., a decrease of 32 per cent. The major part of this decrease may be set down as due to the fall in the price of wool, and to the defective season of 1885. Notwithstanding the apparently large decrease exhibited during the past few years, the exports per head compare very favourably with those of all the other Australian Colonies. The values of exports per head for each year since 1871 were :—

No. 140.—Value of Exports of New South Wales and other Produce per head.

| Year. | New South Wales produce exported. | Other produce exported. | Year. | New South Wales produce exported. | Other produce exported. |
|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | | £ s. d. | £ s. d. |
| 1871 | 18 3 4 | 3 19 9 | 1879 | 15 13 4 | 3 6 11 |
| 1872 | 15 6 9 | 4 11 3 | 1880 | 17 13 10 | 3 18 5 |
| 1873 | 18 13 9 | 4 9 9 | 1881 | 17 6 1 | 4 2 11 |
| 1874 | 18 2 5 | 3 16 11 | 1882 | 17 16 7 | 4 8 3 |
| 1875 | 19 16 11 | 3 15 1 | 1883 | 19 15 9 | 4 10 0 |
| 1876 | 17 16 6 | 3 15 10 | 1884 | 16 18 10 | 4 3 0 |
| 1877 | 17 11 0 | 3 16 11 | 1885 | 14 2 11 | 3 16 11 |
| 1878 | 16 11 0 | 3 8 4 | 1886 | 13 3 1 | 2 14 6 |

Value of exports per head.

The average value of exports, the produce of the Colony, during the last ten years, compared with those of the other colonies, shows that not only were the exports of New South Wales more valuable in the gross, but exceeded those of all the other Colonies, when tested by the standard of population. Thus, for the last ten years, the average exports per head have amounted to—

| | £ | s. | d. |
|---|---|---|---|
| New South Wales | 16 | 13 | 3 |
| Victoria | 13 | 2 | 5 |
| Queensland | 16 | 12 | 7 |
| South Australia | 15 | 15 | 10 |
| New Zealand | 12 | 18 | 4 |
| Tasmania | 12 | 2 | 10 |
| Western Australia | 15 | 8 | 0 |

Chief articles of export.

The chief articles of export are wool, coin, coal, live-stock, tin, silver, copper, skins, and tallow. Other articles have also been exported to considerable value in times past, but their importance has disappeared or is lost in comparison with that of the products just named. Amongst such may be mentioned grain, leather, provisions, and sugar; of some of these articles there is still a fairly large export, but of none is the export per head so large as formerly, while in the case of sugar it has practically ceased.

## *WOOL.*

Wool the staple export.

Wool is the staple export of the Colony, and comprises considerably more than half the value of the total exports. The quantities and values of the wool exported during each year since 1877 are given below, and from the table it will be readily seen how greatly the Colony depends upon the produce of its flocks for its prosperity.

No. 141.—Quantities and Values of New South Wales Wool Exported :—

| Year. | Weight. | Value. | Year. | Weight. | Value. |
|---|---|---|---|---|---|
| | lb. | £ | | lb. | £ |
| 1877 | 102,150,246 | 5,256,038 | 1882 | 146,221,182 | 7,433,091 |
| 1878 | 111,833,017 | 5,723,316 | 1883 | 188,161,710 | 9,598,761 |
| 1879 | 123,710,450 | 6,491,198 | 1884 | 173,986,303 | 8,953,100 |
| 1880 | 154,871,832 | 8,040,625 | 1885 | 168,151,659 | 7,246,642 |
| 1881 | 139,601,506 | 7,149,787 | 1886 | 173,985,640 | 7,028,596 |

Re-export of wool.

Besides the wool grown in the Colony, there has been a large re-export of other wool, chiefly from Queensland. In 1885, the export of foreign wool amounted to slightly more than 10,000,000 pounds weight, valued £431,605; but in 1886, the quantity had fallen to 4,664,971 pounds, of the value of £173,380 sterling. The exports, as returned by the Customs, are given below; but the quantities fall short of the actual amount, as not a little wool, the produce of other places, is exported as New South Wales wool, on the same principle, probably, that leads to the shipment from Melbourne of over 40,000,000 pounds weight of wool, grown in New South Wales, as the produce of Victoria.

No. 142.—Wool Exported—not the Produce of the Colony—1877–86:—

| Year. | Weight. | Value. | Year. | Weight. | Value. |
|---|---|---|---|---|---|
| | lb. | £ | | lb. | £ |
| 1877 | 5,746,895 | 370,564 | 1882 | 7,130,162 | 340,613 |
| 1878 | 4,172,913 | 236,890 | 1883 | 8,878,422 | 537,483 |
| 1879 | 5,413,123 | 278,096 | 1884 | 9,030,215 | 429,399 |
| 1880 | 7,614,490 | 396,909 | 1885 | 10,221,766 | 431,605 |
| 1881 | 7,582,181 | 381,005 | 1886 | 4,664,971 | 173,380 |

Severe seasons have affected wool trade.

The severe seasons experienced during the past few years have very materially interfered with the production of, and consequently the exportation of wool; but the splendid season of 1886–7 will probably be attended with a considerable increase in this staple export. There has been a tendency in past years to export washed wool; thus, in 1877, out of a total export of 54,736,114 pounds from Sydney, 22,655,077 pounds were washed; in 1883, Export of washed wool.

the quantity was only 29,964,411 pounds, out of a total 134,015,162 pounds; and in 1886, 27,576,597 pounds washed wool, out of a total export seawards of 114,892,830 pounds. The tendency is now towards the export of wool in grease, except where the conditions as to carriage, &c., are exceptional.

Other exports.

The other animal products—tallow, skins, leather, and suchlike—form together an export of considerable value, though, owing to the large local demand, it is not probable that there will be any material increase in the value of these articles exported.

Coal.

Coal, also, forms one of the staple exports of New South Wales, having reached a total value of £1,000,000. The development of the coal trade of the Colony has been traced elsewhere, and it will be seen that it is subject to less fluctuation than any other item of export.

Silver.

The export of silver and silver-lead ore has become important since 1884, and bids fair to show considerable increase. The great fall in the value of copper has checked the production of that metal; and a fall in prices has also affected the trade in tin, which, previous to 1884, was much more considerable than at present.

Bullion and specie.

Bullion and specie form one of the most important exports of the Colony, though the larger part of the coin exported is minted from gold produced in other colonies. The export during each year since 1871 was:—

| | £ | | £ |
|---|---|---|---|
| 1871 | 2,346,971 | 1879 | 824,758 |
| 1872 | 2,406,443 | 1880 | 887,773 |
| 1873 | 2,952,476 | 1881 | 1,982,210 |
| 1874 | 1,972,582 | 1882 | 1,743,563 |
| 1875 | 2,118,323 | 1883 | 1,725,891 |
| 1876 | 1,679,227 | 1884 | 949,758 |
| 1877 | 1,901,538 | 1885 | 1,632,258 |
| 1878 | 1,823,958 | 1886 | 1,584,324 |

Divided into the classes adopted for the imports, the exports of the home produce appear as follows:—

| | £ |
|---|---|
| Food and beverages, including breadstuffs | 249,950 |
| Wine, fermented and spirituous liquor | 21,180 |
| Live-stock | 937,846 |
| Animal and vegetable products, including wool | 7,764,691 |
| Clothing and textile fabrics | 1,876 |
| Minerals and metals, raw or partly worked up, not including coal, coin, and bullion | 944,428 |
| Coal | 953,906 |
| Specie and precious metals | 1,818,200 |
| Articles of education and amusement | 7,608 |
| Manufactured articles not included elsewhere | 170,852 |
| Unclassified | 13,663 |
| Total | 12,884,200 |

Raw materials largest export.

By far the larger portion of the exports consists of raw materials. As an export manufacturing country New South Wales has not yet achieved any position; and, though her manufactures are of very considerable importance, as will hereafter appear, her own markets furnish so wide a scope for manufacturing industry as to make it improbable that there will be any great development of export trade in home manufactures in the immediate future. So many channels have presented themselves for the successful employment of capital that little attention has been bestowed upon the possibility of New South Wales supplying other countries with manufactured goods; but as these outlets of capital are closed, the vast possibilities of the country in other directions will doubtless be recognized.

Chief articles exported.

The following table has been prepared with the view of showing the relative importance of each of the principal articles exported, and the proportionate increase per head of population. The preponderance of raw material, and raw material advanced one stage towards the finished manufacture, will be apparent.

### No. 143.—Value per Head of the Principal Articles of Home Produce and Manufacture Exported during the years 1876-86 :—

| Articles. | 1876. | | 1877. | | 1878. | | 1879. | | 1880. | | 1881. | | 1882. | | 1883. | | 1884 | | 1885. | | 1886. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. | s. | d. |
| Coal | 20 | 8 | 20 | 0 | 21 | 6 | 20 | 1 | 11 | 9 | 11 | 0 | 16 | 3 | 19 | 10 | 21 | 2 | 20 | 9 | 19 | 4 |
| Coin* | 52 | 1 | 57 | 8 | 50 | 3 | 20 | 0 | 22 | 10 | 42 | 11 | 38 | 6 | 37 | 4 | 19 | 6 | 29 | 6 | 32 | 4 |
| Copper | 7 | 8 | 9 | 9 | 10 | 6 | 7 | 5 | 10 | 0 | 9 | 4 | 8 | 2 | 13 | 10 | 9 | 5 | 5 | 8 | 3 | 5 |
| Flour | 0 | 2 | 0 | 7 | 0 | 5 | 0 | 4 | 0 | 3 | 0 | 5 | 0 | 9 | 0 | 7 | 0 | 6 | 0 | 4 | 0 | 5 |
| Fruit | 1 | 5 | 2 | 1 | 2 | 2 | 2 | 6 | 2 | 6 | 2 | 10 | 2 | 2 | 2 | 9 | 2 | 3 | 2 | 5 | 2 | 3 |
| Gold | 0 | 5 | 0 | 5 | 1 | 5 | 0 | 2 | 0 | 0½ | 7 | 5 | 3 | 10 | 3 | 1 | 1 | 9 | 1 | 8 | 0 | 9 |
| Grain and pulse | 3 | 0 | 4 | 7 | 4 | 8 | 3 | 10 | 3 | 0 | 3 | 4 | 1 | 7 | 1 | 5 | 1 | 6 | 1 | 9 | 1 | 1 |
| Leather | 3 | 1 | 2 | 11 | 2 | 9 | 1 | 10 | 2 | 10 | 3 | 7 | 3 | 7 | 2 | 4 | 2 | 10 | 2 | 3 | 2 | 1 |
| Boots and shoes | 1 | 11 | 1 | 10 | 1 | 5 | 1 | 5 | 1 | 4 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 3 | 1 | 0 | 0 | 6 |
| Live stock | 37 | 9 | 28 | 5 | 22 | 4 | 26 | 6 | 27 | 0 | 20 | 5 | 18 | 8 | 18 | 10 | 27 | 2 | 20 | 11 | 19 | 2 |
| Provisions | 3 | 3 | 4 | 6 | 1 | 10 | 4 | 5 | 5 | 2 | 5 | 4 | 4 | 5 | 6 | 7 | 4 | 2 | 3 | 10 | 1 | 7 |
| Silver and ore | 0 | 6 | 0 | 3 | 0 | 5 | 0 | 6 | 0 | 7 | 0 | 4 | 0 | 2 | 0 | 5 | 3 | 3 | 5 | 9 | 8 | 8 |
| Skins | 2 | 8 | 4 | 3 | 2 | 8 | 4 | 0 | 5 | 1 | 5 | 6 | 6 | 7 | 7 | 1 | 6 | 7 | 5 | 10 | 6 | 2 |
| Sugar | 5 | 7 | 4 | 4 | 4 | 1 | 4 | 11 | 4 | 9 | 3 | 1 | 1 | 10 | 1 | 5 | 0 | 10 | …… | | …… | |
| Tallow | 3 | 11 | 4 | 8 | 2 | 11 | 6 | 3 | 9 | 8 | 7 | 0 | 5 | 11 | 8 | 7 | 4 | 6 | 4 | 2 | 3 | 0 |
| Timber | 0 | 10 | 0 | 10 | 1 | 1 | 1 | 0 | 0 | 6 | 0 | 7 | 1 | 0 | 1 | 7 | 2 | 4 | 1 | 2 | 1 | 3 |
| Tin | 12 | 6 | 16 | 2 | 12 | 1 | 10 | 10 | 13 | 0 | 19 | 1 | 20 | 11 | 19 | 9 | 11 | 10 | 8 | 11 | 9 | 6 |
| Wool | 93 | 0 | 167 | 2 | 174 | 0 | 188 | 0 | 221 | 7 | 183 | 1 | 187 | 0 | 230 | 1 | 203 | 3 | 155 | 8 | 143 | 5 |

* Coined at Mint, but mostly from gold the produce of other Colonies.

Values of principal exports.

The values of some of the principal articles of Home produce exported, during 1886, including those mentioned above, were as follows.

No. 144.—Export of Home Produce :—

| | £ | | £ |
|---|---|---|---|
| Boots and shoes | 23,164 | Provisions (meat) | 85,539 |
| Coal | 947,002 | Shale | 60,621 |
| Coin | 1,584,324 | Silver and ore | 492,029 |
| Copper | 167,665 | Skins | 303,885 |
| Fruit | 112,371 | Tallow | 145,198 |
| Gold | 35,612 | Timber | 62,975 |
| Grain | 57,856 | Tin | 467,653 |
| Leather | 100,930 | Wool | 7,028,596 |
| Live stock | 937,052 | | |

Trade in live stock.

The number and value of the live stock exported have varied considerably from year to year, being affected greatly by the seasons experienced both in this and the neighbouring colonies.

Export of horses declined.

The export of horses has declined, as far as numbers are concerned, but the values have increased. On the other hand, the imports show an increase in number and in value. The figures in respect to horses are to some extent misleading, as the number of thoroughbred animals passing backwards and forwards between Sydney and Melbourne, which are entered as exports or imports, serve to give more importance to the trade than its magnitude really warrants.

The decrease in the number of cattle depastured in the Colony has been attended by a diminished export, and whilst the exportation of sheep has also fluctuated greatly since 1883 the number of horned cattle imported has largely increased. The failure of the pastures throughout a portion of the Colony led to a partial exodus of sheep in 1884, and in 1885 there was a correspondingly large return.

Returns of stock misleading.

But the figures for the export and import of live stock are each to a certain extent misleading, inasmuch as the returns are swollen by the inclusion of stock sent from one colony to another, in the hope of obtaining better pasturage, or for fattening or breeding purposes. The general tendency of the trade, however, can be gathered from the table given below. Correct figures were obtained for all the colonies except Queensland, but the overland Queensland trade has been greatly understated, both for exports and imports. The total trade in live stock during 1886 was:—

No. 145.—Live Stock Exported and Imported in 1886.

| Stock. | Exported. | | Imported. | |
|---|---|---|---|---|
| | Number. | Value. | Number. | Value. |
| | | £ | | £ |
| Horses ............... | 4,916 | 126,131 | 3,310 | 105,190 |
| Horned cattle ...... | 51,359 | 297,130 | 80,677 | 433,564 |
| Sheep.................. | 1,256,906 | 512,421 | 288,225 | 160,456 |
| Pigs .................. | 647 | 1,081 | 1,151 | 1,743 |
| Other stock ......... | 21 | 289 | 135 | 609 |
| Total .......... | 4,149 | 937,052 | 373,498 | 701,562 |

### *RE-EXPORT TRADE.*

Re-export trade considerable.

The re-export trade of the Colony has increased considerably during the past ten years, but has now reached a point beyond which it is not likely to advance for some years. The shipping facilities of Sydney have hitherto attracted to the port a large amount of trade from New Zealand, Queensland, and the South Seas, for transhipment to Europe; but the establishment of direct communication between these places and Europe has checked to some extent the expansion of the re-export trade, though it is not probable that it will fall below its present dimensions.

Overland trade in foreign produce.

The re-export overland trade is comparatively limited, amounting in 1886 to only £125,380, out of a total trade of £2,672,013.

**Value of re-exports.**

The total value of the re-exports of the Colony during each of the past ten years, was as follows :—

No. 146.—Value of the Produce of other Countries, Exported from New South Wales :—

| Year. | Seaward. | Overland. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| 1877 | 2,353,563 | 67,498 | 2,421,061 |
| 1878 | 2,189,658 | 59,710 | 2,249,368 |
| 1879 | 2,278,151 | 33,024 | 2,311,175 |
| 1880 | 2,797,476 | 47,880 | 2,845,356 |
| 1881 | 3,093,454 | 60,556 | 3,154,010 |
| 1882 | 3,430,251 | 78,251 | 3,508,502 |
| 1883 | 3,661,223 | 94,928 | 3,756,151 |
| 1884 | 3,521,743 | 134,027 | 3,655,770 |
| 1885 | 3,418,920 | 164,944 | 3,583,864 |
| 1886 | 2,536,633 | 135,380 | 2,672,013 |

**Re-export trade has kept pace with increase of population.**

It will be seen that the amount of exports has kept pace fairly with the increase of population, the greatest decline being during the last year of the series, and that is due, in all probability, to the depression in trade which was experienced almost everywhere. The subsequent table, giving the value of this trade per head since 1871, will illustrate its comparative importance during each year.

No. 147.—Value per Head of Foreign Produce Exported from New South Wales :—

| Year. | Value. | Year. | Value. | Year. | Value. |
|---|---|---|---|---|---|
| | £ s. d. | | £ s. d. | | £ s. d. |
| 1871 | 3 19 9 | 1877 | 3 16 11 | 1883 | 4 10 0 |
| 1872 | 4 11 3 | 1878 | 3 8 4 | 1884 | 4 3 0 |
| 1873 | 4 9 9 | 1879 | 3 6 11 | 1885 | 3 16 11 |
| 1874 | 3 16 11 | 1880 | 3 18 5 | 1886 | 2 14 6 |
| 1875 | 3 15 1 | 1881 | 4 2 11 | | |
| 1876 | 3 15 10 | 1882 | 4 8 3 | | |

**Principal re-exports.**

Amongst raw materials, the principal articles re-exported are copper, tin, and wool; the manufactured articles are chiefly drapery, apparel, hardware, iron and steel, books and stationery, boots, beer and spirits, and also large quantities of provisions. Grouped under the several heads already adopted for the imports and exports, the value of the trade for the year 1886 will be found below.

No. 148.—Classification of Re-export Trade :—

| | £ |
|---|---|
| Food and beverages, including breadstuffs | 413,177 |
| Wines, fermented and spirituous liquors | 107,743 |
| Live stock | 75,080 |
| Animal and vegetable products, including wool | 413,568 |
| Clothing and textile fabrics | 363,459 |
| Minerals and metals, raw or partly worked up, not including coal, coin, and bullion | 425,678 |
| Specie and precious metals | 13,596 |
| Articles of education, art, and amusement | 162,525 |
| Manufactured articles not elsewhere included | 662,448 |
| Articles unclassified by Customs | 34,739 |
| Total | 2,672,013 |

**Indirect benefit of re-exports.**

The benefit derived by the Colony from its re-export trade is indirect and can hardly be estimated. The freights earned by New South Wales vessels carrying such produce, do not amount to a large sum, as the carriage is chiefly in other hands. Still the trade is valuable, the probable sum accruing to the Colony from this source, for the past ten years, being about 5 per cent. on the total value of the re-export trade, as shown in the following table :—

Approximate Amount earned by New South Wales from Re-export of Foreign Produce.

| | £ | | £ |
|---|---|---|---|
| 1877 | 121,053 | 1882 | 175,425 |
| 1878 | 112,468 | 1883 | 187,807 |
| 1879 | 116,558 | 1884 | 182,788 |
| 1880 | 142,267 | 1885 | 179,193 |
| 1881 | 157,700 | 1886 | 133,600 |

### *OVERLAND TRADE.*

**Overland trade affected by railway.**

The overland trade shows signs of decrease, which, through the operation of the railway system, will probably become permanent. As the major portion of the goods exported overland simply passes through the border colonies of Victoria and South Australia, to Great Britain, the diversion of the trade along the railways of the Colony to its ports, must be looked upon as a distinct gain. To what extent this is being accomplished may be gleaned from the following figures, which include Queensland trade as well as the Victorian and South Australian :—

No. 149.—Overland Trade.

| Year. | Imports. | Exports. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| 1877 | 1,871,816 | 3,474,861 | 5,346,677 |
| 1878 | 2,090,611 | 3,845,648 | 5,936,259 |
| 1879 | 1,535,421 | 4,149,047 | 5,684,468 |
| 1880 | 1,438,155 | 4,768,542 | 6,206,697 |
| 1881 | 1,708,648 | 4,042,461 | 5,751,109 |
| 1882 | 1,912,409 | 4,995,645 | 6,908,054 |
| 1883 | 2,310,495 | 4,307,623 | 6,618,118 |
| 1884 | 2,186,553 | 4,830,750 | 7,017,303 |
| 1885 | 2,611,130 | 3,405,073 | 6,016,203 |
| 1886 | 1,699,589 | 4,090,074 | 5,789,663 |

### *TRADE OF AUSTRALASIAN COLONIES.*

**Trade larger than any other colony.**

The trade of New South Wales is larger, both in the gross amount and the value per head, than that of any of the other Colonies of Australasia. The total trade of each colony, and the trade per head, for the past eleven years are given below ; and though the latter part of the period was one of severe depression, the magnitude of the trade, not only of this Colony but of the rest of the group, is very suggestive. In gross amount, the trade of Victoria ranks second to New South Wales, but in point of value per head, that colony is surpassed both by Queensland and South Australia.

No. 150.—Trade of Australasian Colonies.—Total Value per Head in Each Colony, 1876-86:—

| Year. | New South Wales. | | | | Victoria. | | | | South Australia. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total value. | Value per head. | | | Total value. | Value per head. | | | Total value. | Value per head. | | |
| | £ | £ | s. | d. | £ | £ | s. | d. | £ | £ | s. | d. |
| 1876 | 26,676,717 | 44 | 9 | 1 | 29,901,841 | 37 | 10 | 9 | 9,392,353 | 43 | 1 | 5 |
| 1877 | 28,310,678 | 45 | 0 | 3 | 31,519,991 | 38 | 19 | 7 | 9,252,042 | 39 | 19 | 8 |
| 1878 | 28,239,050 | 42 | 18 | 7 | 31,087,587 | 37 | 16 | 10 | 11,074,632 | 45 | 10 | 6 |
| 1879 | 27,635,757 | 40 | 0 | 3 | 27,489,708 | 32 | 19 | 2 | 9,776,877 | 38 | 6 | 6 |
| 1880 | 29,858,865 | 41 | 2 | 10 | 30,511,453 | 35 | 17 | 7 | 11,156,003 | 42 | 3 | 9 |
| 1881 | 33,894,817 | 44 | 11 | 8 | 32,970,624 | 37 | 16 | 11 | 9,631,821 | 34 | 2 | 7 |
| 1882 | 39,145,254 | 49 | 5 | 1 | 34,941,660 | 39 | 1 | 5 | 12,067,678 | 41 | 13 | 4 |
| 1883 | 41,785,114 | 50 | 1 | 8 | 34,142,709 | 37 | 3 | 0 | 11,193,516 | 37 | 10 | 1 |
| 1884 | 41,738,206 | 47 | 7 | 9 | 35,252,098 | 37 | 4 | 10 | 12,373,057 | 40 | 3 | 5 |
| 1885 | 40,487,568 | 43 | 9 | 10 | 33,596,362 | 34 | 9 | 2 | 11,184,658 | 35 | 0 | 0 |
| 1886 | 36,529,761 | 37 | 5 | 7 | 30,325,896 | 30 | 14 | 5 | 9,341,760 | 29 | 16 | 9 |

| Year. | Queensland. | | | | Western Australia. | | | | Tasmania. | | | | New Zealand. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total value. | Value per head. | | | Total value. | Value per head. | | | Total value. | Value per head. | | | Total value. | Value per head. | | |
| | £ | £ | s. | d. | £ | £ | s. | d. | £ | £ | s. | d. | £ | £ | s. | d. |
| 1876 | 7,002,140 | 38 | 0 | 4 | 783,330 | 28 | 13 | 5 | 2,263,986 | 21 | 13 | 0 | 12,578,636 | 33 | 4 | 2 |
| 1877 | 8,429,957 | 43 | 4 | 2 | 736,059 | 26 | 13 | 9 | 2,725,646 | 25 | 12 | 10 | 13,300,890 | 32 | 11 | 5 |
| 1878 | 6,626,496 | 32 | 0 | 10 | 807,541 | 28 | 16 | 9 | 2,640,507 | 24 | 6 | 7 | 14,771,188 | 34 | 17 | 7 |
| 1879 | 6,514,923 | 30 | 8 | 4 | 902,182 | 31 | 15 | 0 | 2,568,572 | 23 | 1 | 11 | 14,117,711 | 31 | 10 | 1 |
| 1880 | 6,535,456 | 29 | 8 | 10 | 852,852 | 29 | 11 | 4 | 2,881,154 | 25 | 7 | 2 | 12,514,703 | 26 | 7 | 8 |
| 1881 | 7,603,991 | 34 | 8 | 1 | 907,601 | 30 | 15 | 0 | 2,986,720 | 25 | 9 | 2 | 13,517,911 | 27 | 7 | 10 |
| 1882 | 9,852,915 | 41 | 9 | 4 | 1,091,810 | 35 | 18 | 6 | 3,258,261 | 26 | 19 | 10 | 15,267,278 | 30 | 1 | 3 |
| 1883 | 11,509,959 | 42 | 19 | 4 | 963,856 | 30 | 15 | 0 | 3,564,236 | 28 | 13 | 3 | 15,070,037 | 28 | 9 | 5 |
| 1884 | 11,055,840 | 37 | 0 | 3 | 926,860 | 28 | 13 | 5 | 3,131,975 | 24 | 7 | 11 | 14,755,555 | 26 | 14 | 0 |
| 1885 | 11,665,894 | 36 | 12 | 9 | 1,097,083 | 33 | 4 | 0 | 3,071,179 | 23 | 4 | 9 | 14,299,860 | 25 | 6 | 2 |
| 1886 | 11,037,197 | 32 | 19 | 4 | 1,388,406 | 37 | 2 | 9 | 3,088,107 | 22 | 16 | 9 | 13,431,804 | 23 | 1 | 4 |

### *BRITISH TRADE.*

**British trade holds first position.**

The British trade holds the first position in regard to value, being larger than even the intercolonial trade of the Colony, and if to the value of goods coming directly from Great Britain were added that of goods passing through the neighbouring colonies, but destined for, or coming from, England, the proportion of British trade would be much higher. For, though the nominal trade between Great Britain and New South Wales amounted to the large sum of £16,472,934, out of a total trade of £36,529,761, it is probable that the actual value of this trade was not less than £21,500,000. The amount of trade as set down in the subsequent table is therefore much below the truth, especially in regard to exports, as the larger part of produce exported to Victoria and South Australia overland is in reality destined for British ports. The seaward trade can alone be given, and this will be found below for the years which have elapsed since 1870.

No. 151.—Imports and Exports from and to Great Britain, Seaward :—

| Year. | Imports. | Exports. | Total trade. |
|---|---|---|---|
| | £ | £ | £ |
| 1870 | 3,200,706 | 2,492,640 | 5,693,346 |
| 1871 | 3,252,617 | 4,378,281 | 7,630,898 |
| 1872 | 3,728,457 | 4,926,728 | 8,655,185 |
| 1873 | 5,137,139 | 6,657,559 | 11,794,698 |
| 1874 | 4,888,725 | 5,737,066 | 10,625,791 |
| 1875 | 6,062,226 | 6,374,503 | 12,436,729 |
| 1876 | 5,763,533 | 5,918,187 | 11,681,720 |
| 1877 | 6,471,780 | 6,018,926 | 12,490,706 |
| 1878 | 6,658,628 | 5,516,437 | 12,175,065 |
| 1879 | 6,749,519 | 5,148,609 | 11,898,128 |
| 1880 | 6,536,661 | 7,525,637 | 14,062,298 |
| 1881 | 8,986,838 | 7,561,114 | 16,547,952 |
| 1882 | 11,155,917 | 7,309,691 | 18,465,608 |
| 1883 | 10,624,081 | 9,884,207 | 20,508,288 |
| 1884 | 11,423,047 | 7,683,880 | 19,106,927 |
| 1885 | 11,885,597 | 7,293,133 | 19,178,730 |
| 1886 | 10,445,980 | 6,026,954 | 16,472,934 |

## *INTERCOLONIAL TRADE.*

Value of intercolonial trade.

Next in importance to the British trade stands the intercolonial, the value of which amounted in the year 1886 to £7,742,619, imports, and £7,489,451 exports, or a total trade of £15,232,070, a sum very little short of the nominal trade with Great Britain.

No. 152.—Trade of New South Wales with other Australian Colonies :—

| Year. | Imports. | Exports. | Total trade. |
|---|---|---|---|
| | £ | £ | £ |
| 1877 | 6,416,757 | 6,628,822 | 13,045,579 |
| 1878 | 6,468 978 | 6,802,373 | 13,271,351 |
| 1879 | 5,634,808 | 7,120,840 | 12,755,648 |
| 1880 | 5,945,788 | 7,381,172 | 13,326,960 |
| 1881 | 6,229,916 | 6,981,456 | 13,211,372 |
| 1882 | 7,289,823 | 8,425,903 | 15,715,726 |
| 1883 | 8,054,390 | 7,943,332 | 15,997,722 |
| 1884 | 8,507,199 | 8,708,323 | 17,215,522 |
| 1885 | 8,595,429 | 6,936,139 | 15,531,568 |
| 1886 | 7,742,619 | 7,544,139 | 15,286,758 |

The figures for Western Australia are not available for the whole period, and are too small to affect the total to any material extent. They have therefore been disregarded.

Trade with other colonies during 1886.

The trade during 1886 shows no great increase over the figures of 1877, the total being £15,232,070, as against £13,045,579 ; while the four years, 1882–5, each show a larger result than in 1886. This falling off is undoubtedly due in a large measure to the division of trade, which will be hereafter discussed ; but by far the greater portion of the decrease is attributable to the failure of the season over part of the western districts of the Colony, whence produce is exported overland to Victoria and South Australia. The exports during 1885 fell to £6,936,139, a sum nearly £2,000,000 less than that of the previous year. This decline would naturally affect the imports of the following year. The dry season extended into 1886, and caused a diminution in the production of the year; but as the river Darling was in flood during part of the year, goods which would otherwise have come to Sydney, or have remained at the stations, were conveyed by river to the neighbouring colonies, and swell the export trade to the figures shown in table No. 152. Were it not for this cause, the exports to the other Australasian Colonies would have shown a decline similar to that found in the total exports.

Value of trade with Victoria.

Victoria comes first amongst the colonies of the group, as regards the value of its trade with New South Wales, though its importance has sensibly declined during late years, especially in regard to exports. It is estimated that prior to the extension of the railway system of this Colony into the Riverine districts nearly one-fourth of its territory, comprising some of the richest districts of the Colony, traded almost exclusively with Victoria. This trade has now been, to a great extent, diverted along New South Wales lines to Sydney; hence the decrease observable, which will be more plainly seen in table No. 154, showing the Border trade.

Large range of articles imported from Victoria.

The import trade of the Colony from Victoria covers a large range of articles, and in this respect differs from the export, which is mainly comprised in three leading items of raw produce—wool, stock, and coal. Dividing the imports from Victoria into two classes, viz., Victorian and other produce, the chief imports under the former class are agricultural implements, butter, breadstuffs, fruit, oats, hay and other fodder, and vegetables; while under the second head come drapery and apparel, drugs, hardware, iron, jewellery, machinery, stationery, and other manufactured articles. Victorian produce, properly so called, comes chiefly to Sydney; the other articles are taken by the southern and western portions of the Colony, which have for many years looked to Victoria as a market whence such supplies are to be derived.

Wool chief export.

The chief export to Victoria is wool, forwarded to Melbourne for shipment to London and other European ports. The value of wool exported to Victoria during the last ten years was :—

| | £ | | £ |
|---|---|---|---|
| 1877 | 2,248,574 | 1882 | 2,396,528 |
| 1878 | 2,154,201 | 1883 | 2,502,205 |
| 1879 | 2,709,736 | 1884 | 2,229,873 |
| 1880 | 3,224,289 | 1885 | 1,863,009 |
| 1881 | 2,783,969 | 1886 | 1,931,278 |

The decrease noticeable in the values given above is due mainly to the extension of the railway system of the Colony, and the consequent diversion of traffic to Sydney from the old routes, but the decrease is also partly attributable to the fall in the value of the staple which has taken place during late years.

Export of stock.

Stock of all kinds forms a large portion of the exports to Victoria, though the imports, especially of sheep, have also been considerable ; and in 1885, the balance of trade was in favour of the southern colony. Victoria has already reached the limit where the cast of stock equals the demand for meat ; she is therefore, dependent on the other colonies, especially New South Wales, for the supply of the deficiency, the amount of which is little short of one-fourth of the whole consumption.

Coal is next in importance as an export of this Colony to Victoria, the value during 1886 being £336,979. The only other produce worthy of special note are skins and timber, the former being sent to Victoria for re-export.

Trade since 1870.

The following table gives the trade during each year since 1870 ; but as no records were kept of the trade during certain years in which border duties were not collected, the totals for such years are necessarily only approximate.

**No. 153.—Trade of New South Wales with Victoria, 1870–86 :—**

| Year. | Imports. | Exports. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| 1870 | 1,153,695 | 2,583,552 | 3,737,247 |
| 1871 | 1,698,236 | 4,577,559 | 6,275,795 |
| 1872 | 1,188,781 | 2,858,191 | 4,046,972 |
| 1873* | ............ | 3,366,963 | ............ |
| 1874 | 1,349,062 | 3,614,456 | 4,963,518 |
| 1875 | 2,066,156 | 4,269,770 | 6,335,926 |
| 1876 | 2,376,777 | 4,043,566 | 6,420,343 |
| 1877 | 2.531,449 | 3,898,129 | 6,429,578 |
| 1878 | 2,897,503 | 3,694,434 | 6,591,937 |
| 1879 | 2,234,381 | 4,177,871 | 6,412,252 |
| 1880 | 2,187,119 | 4,578,867 | 6,765,986 |
| 1881 | 2,414,590 | 4,052,694 | 6,467,284 |
| 1882 | 2,770,245 | 3,781,421 | 6,551,666 |
| 1883 | 3,012,268 | 4,170,599 | 7,182,867 |
| 1884 | 3,064,816 | 4,170,497 | 7,235,313 |
| 1885 | 3,309,696 | 3,450,796 | 6,760,592 |
| 1886 | 2,789,700 | 3,697,343 | 6,487,430 |

**Greater portion of trade borderwise.**

The greater portion of the exports to Victoria, as well as nearly half the imports, are borderwise. The value of the imports overland, however, fell greatly, from the causes already specified, during the year 1886, when they reached only £874,680, or scarcely one-third of the total value of goods imported. The value in each of the past eleven years was :—

No. 154.—Overland Trade with Victoria, 1870–86.

| Year. | Imports. | Exports. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| 1870 | 448,308 | 1,811,848 | 2,260.156 |
| 1871 | 491,632 | 3,027,714 | 3,519,346 |
| 1872 | 464,185 | 2,123,622 | 2,587,807 |
| 1873* | ......... | 2,758,116 | ......... |
| 1874 | 452,086 | 2,812,477 | 3,264,563 |
| 1875 | 945,049 | 3,546,674 | 4,491,723 |
| 1876 | 1,246,880 | 3,294,795 | 4,541,675 |
| 1877 | 1,360.171 | 2,869,945 | 4,230,116 |
| 1878 | 1,357,715 | 2,661,639 | 4,019,354 |
| 1879 | 933,999 | 3.394,764 | 4,328,763 |
| 1880 | 963,620 | 3,824,310 | 4,787,930 |
| 1881 | 1,210,931 | 3,229,664 | 4,440,595 |
| 1882 | 1,217,120 | 2,867,810 | 4,084,930 |
| 1883 | 1,266,330 | 2,955,808 | 4,222,138 |
| 1884 | 1,331,908 | 3,118,389 | 4,450,297 |
| 1885 | 1,555,139 | 2,450,444 | 4,005,583 |
| 1886 | 874,680 | 2,537,549 | 3,412,229 |

* No returns of the overland trade for this year.

Trade with Queensland.

Queensland ranks next to Victoria in regard to the value of its trade with New South Wales, which in some respects is even more important than that of the southern colony. The estimated value of the imports and exports since 1870 is given below. It is possible that the amounts are somewhat understated, as there is a good deal of trade in stock which does not come under the cognizance of the Customs officers. Though New South Wales and Queensland have a common boundary of 900 miles, the overland trade, except in live stock, is not large. If, however, the value of stock be added, the figures reach a very considerable total, as will be seen from the subjoined tables.

No. 155.—Trade of New South Wales with Queensland :—

| Year. | Imports. | Exports. | Total trade. |
|---|---|---|---|
| | £ | £ | £ |
| 1870 | 1,240,877 | 639,761 | 1,880,638 |
| 1871 | 1,921,790 | 715,287 | 2,637,077 |
| 1872 | 2,150,452 | 1,053,386 | 3,203.838 |
| 1873 | 2,248,609 | 953,017 | 3,201,626 |
| 1874 | 2,569,989 | 1,138,880 | 3,708,869 |
| 1875 | 2,521,310 | 1,238,226 | 3,759,536 |
| 1876 | 2,117,318 | 1,179,291 | 3,296,609 |
| 1877 | 2,476,141 | 1,830,209 | 4,306,350 |
| 1878 | 2,149,534 | 1,390,147 | 3,539,681 |
| 1879 | 2,206,094 | 1,444,769 | 3,650,863 |
| 1880 | 2,224,421 | 1,362,262 | 3,586,683 |
| 1881 | 2,169,105 | 1,959,925 | 4,129,030 |
| 1882 | 2,149,766 | 3,012,782 | 5,162,548 |
| 1883 | 2,951,558 | 2,314,087 | 5,265,645 |
| 1884 | 2,983,178 | 2,387,085 | 5,370,263 |
| 1885 | 2,913,588 | 2,174 266 | 5,087,854 |
| 1886 | 2,568,428 | 1,667,862 | 4,236,300 |

Overland Trade with Queensland :—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1876 | 135,322 | 142,689 | 1882 | 282,726 | 1,206,408 |
| 1877 | 257,807 | 394,502 | 1883 | 649,843 | 569,263 |
| 1878 | 345,691 | 229,255 | 1884 | 493,680 | 424,940 |
| 1879 | 312,118 | 118,112 | 1885 | 669,739 | 337,023 |
| 1880 | 231,161 | 245,651 | 1886 | 382,875 | 156,122 |
| 1881 | 261,948 | 494,793 | | | |

The large increase in the value of the imports during 1883-6 consisted chiefly in fat and store cattle, required to supply the deficiency in the local market arising from the long periods of dry weather which occurred during part of these years.

Exports to Queensland.

The value of the exports has varied greatly from year to year through causes similar to those affecting the imports. The most remarkable year in the series given above was in 1882, when the overland export trade reached £1,206,408. Of this sum, £1,149,835 represents the value of stock exported, viz., 3,035 horses, valued at £25,525; 29,404 cattle, valued at £302,590; and 1,645,657 sheep of the value of £821,720. During 1886, the value of stock exported was very much less than in previous years, amounting to only £125,334.

Trade with South Australia.

The trade with South Australia is perhaps more variable than with any other colony, depending, as it does, so largely on the state of the Murray and Darling Rivers. In the subsequent table the years that are marked by a large export trade are those in which the rivers afforded special facilities for navigation. Such years were 1876, 1878, 1882, 1884, and 1886. The total imports and exports during each year since 1870 are given below.

No. 156.—Imports from, and Exports to, South Australia:—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1870 | 366,480 | 350,247 | 1879 | 721,186 | 773,611 |
| 1871 | 724,825 | 490,646 | 1880 | 690,407 | 830,256 |
| 1872 | 653,903 | 442,016 | 1881 | 692,781 | 454,764 |
| 1873 | 598,527 | 630,537 | 1882 | 1,017,685 | 1,085,194 |
| 1874 | 574,421 | 657,768 | 1883 | 841,109 | 969,083 |
| 1875 | 987,933 | 654,232 | 1884 | 1,002,174 | 1,502,366 |
| 1876 | 1,165,706 | 670,138 | 1885 | 890,335 | 810,953 |
| 1877 | 811,292 | 352,825 | 1886 | 828,174 | 1,585,830 |
| 1878 | 889,691 | 1,053,642 | | | |

Overland trade with South Australia.

The records of the overland trade cannot be procured with exactness beyond the year 1876, but the time which has elapsed since the year named is amply sufficient to illustrate the great variations in the value of the exports. The import trade is much more regular, but nevertheless shows no great tendency to increase, and it is fully expected that the extensions of the railway system of this Colony to the banks of the Darling at Bourke and Wilcannia, will eventually divert not a little of the traffic which has hitherto gone to Adelaide. The certainty of speedy delivery, and the less amount of handling to which goods will be subjected, will probably more than compensate for the additional expense of delivery at the ship's side.

No. 157.—Overland Trade with South Australia :—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1876 | 417,421 | 577,967 | 1882 | 412,563 | 921,427 |
| 1877 | 253,838 | 210,414 | 1883 | 404,322 | 782,552 |
| 1878 | 387,205 | 954,754 | 1884 | 360,965 | 1,287,441 |
| 1879 | 289,304 | 636,171 | 1885 | 386,252 | 617,606 |
| 1880 | 243,374 | 698,581 | 1886 | 442,034 | 1,396,403 |
| 1881 | 235,769 | 298,004 | | | |

Victoria displacing South Australia in N.S.W. markets.

The prominence which Victoria has assumed as a wheat-growing country, acts detrimentally to the trade of South Australia, for much of the breadstuff consumed in New South Wales, which was formerly obtained from Adelaide, is now procured from Victoria. The falling-off in this staple commenced about the year 1878, and is coincident with the development of the Victorian trade in flour and wheat, as will be seen from the following table, showing the value of wheat and flour imported from each of these colonies.

No. 158.—Value of Wheat and Flour Imported from Victoria and South Australia :—

| Year. | Value of imports from South Australia. | | Value of imports from Victoria. | |
|---|---|---|---|---|
| | Wheat. | Flour. | Wheat. | Flour. |
| | £ | £ | £ | £ |
| 1870 | 76,397 | 123,958 | 20,758 | 33,986 |
| 1871 | 260,346 | 201,963 | 6,205 | 33,992 |
| 1872 | 105,523 | 205,042 | 7,833 | 7,715 |
| 1873 | 144,592 | 201,332 | 539 | 17,677 |
| 1874 | 141,675 | 230,251 | 1,423 | 4,180 |
| 1875 | 197,263 | 289,385 | 1,514 | 1,296 |
| 1876 | 187,444 | 295,371 | 902 | 2,188 |
| 1877 | 154,284 | 261,918 | 9,765 | 32,305 |
| 1878 | 116,089 | 251,246 | 34,401 | 153,126 |
| 1879 | 63,973 | 221,174 | 13,280 | 76,310 |
| 1880 | 42,340 | 263,546 | 43,249 | 126,142 |
| 1881 | 19,406 | 269,342 | 33,165 | 113,796 |
| 1882 | 62,117 | 321,127 | 23,680 | 194,823 |
| 1883 | 9,195 | 229,617 | 38,794 | 237,342 |
| 1884 | 36,460 | 299,274 | 23,907 | 216,546 |
| 1885 | 31,236 | 219,320 | 23,433 | 291,999 |
| 1886 | 853 | 172,299 | 57,729 | 384,037 |

**Trade with Tasmania.**

The trade of New South Wales with Tasmania promises to develop into one of great importance, and though checked in the years 1884 and 1885, its growth during the period comprised in the following table must nevertheless appear satisfactory. It will, however, be seen that the imports largely exceed the exports. The chief imports are tin, of which ingots to the value of £297,736 were imported during 1886, entirely for the purpose of re-export; green fruit, amounting to £93,722; potatoes, £61,344; jams and jellies, £33,760; bark, £29,550, and other agricultural produce to the value of £29,330. The only other articles of import worthy of note are butter, hops, and leather.

The export trade embraces a large number of articles, though only two, coal and drapery, reach any considerable amount. The value of coal exported to Tasmania in 1886 was £26,033, and of drapery and apparel, £18,601. The other exports consist of manufactured articles, chiefly the produce of Great Britain.

No. 159.—Trade with Tasmania, 1870–86 :—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1870 | 90,827 | 26,555 | 1879 | 188,064 | 82,842 |
| 1871 | 107,002 | 23,049 | 1880 | 383,106 | 81,484 |
| 1872 | 103,018 | 54,993 | 1881 | 481,529 | 88,949 |
| 1873 | 128,770 | 36,044 | 1882 | 614,923 | 85,673 |
| 1874 | 145,865 | 52,127 | 1883 | 666,399 | 120,662 |
| 1875 | 167,870 | 44,274 | 1884 | 575,501 | 117,872 |
| 1876 | 207,075 | 53,484 | 1885 | 582,177 | 108,758 |
| 1877 | 374,393 | 57,168 | 1886 | 606,740 | 110,776 |
| 1878 | 286,343 | 75,453 | | | |

Trade with New Zealand.

New Zealand gave promise at a former period of being one of the leading customers of this Colony, but, from various causes, both the imports and the exports fell away very considerably. The trade lost has, however, been partly recovered, though the exports are still less than in 1879, as will be seen from the following figures.

No. 160.—Trade with New Zealand :—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1870 | 298,951 | 197,025 | 1879 | 285,083 | 639,051 |
| 1871 | 881,501 | 285,463 | 1880 | 460,735 | 525,174 |
| 1872 | 326,369 | 228,930 | 1881 | 471,911 | 427,295 |
| 1873 | 198,368 | 279,153 | 1882 | 737,204 | 454,853 |
| 1874 | 233,981 | 273,910 | 1883 | 583,056 | 358,627 |
| 1875 | 135,480 | 362,764 | 1884 | 881,530 | 506,714 |
| 1876 | 258,441 | 480,241 | 1885 | 899,623 | 369,055 |
| 1877 | 223,482 | 489,856 | 1886 | 949,567 | 427,640 |
| 1878 | 245,907 | 588,419 | | | |

Imports of agricultural produce.

The imports consist chiefly of agricultural and dairy produce. The value of wheat imported during 1886 was £86,608, and of flour, £66,658; the importation of oats amounted to £109,780; of other grain and pulse, £9,894; of bran and sharps, £33,388; of oatmeal, £9,101. The principal articles of farm produce imported were—bacon and hams, £21,207; cheese, £30,350; and butter,

£110,046. Timber valued at £83,866; horses, £35,661; cattle, £13,634; and hops and malt, £21,209, were the other leading importations.

Exports to New Zealand.

The main exports during 1886 were—coin, £215,000; coal, £90,187; and green fruit, £44,557, or £349,744, out of a total trade of £427,640. The only other articles exported to any considerable extent were—drapery and apparel, £10,086; bone-dust, £9,781; and timber, £8,410.

### *TRADE WITH OTHER BRITISH POSSESSIONS.*

Besides the Australasian Colonies and Great Britain, the only other British possessions whose trade with New South Wales is at all considerable are Fiji, Hongkong, and India. With the Fiji Islands the trade is valuable and increasing. In 1876, the imports from these Islands were valued at £29,610, and the exports at £71,477, being a total of £101,087, while in 1886 the imports had risen in value to £176,661, and the exports to £111,901, representing a total trade of £288,562, showing an increase of over 185 per cent. in ten years, while the total trade of the previous year was still larger.

Hongkong trade.

The import trade from Hongkong consists principally of opium, tea, tobacco, sugar, and rice, but large quantities of China oil, flax, hemp, and matting, as well as Chinese fancy goods, are also imported. The export trade is chiefly composed of three items—coin to the amount of £169,943, was exported during 1886; coal, £56,148; and raw sugar, 35,015.

The India trade.

The Indian trade has grown up almost entirely since 1880, in which year it amounted to only £20,264, increasing to £422,137 in 1884, though falling off considerably in the two years which have since elapsed. The following figures show the value of imports and exports during each year since 1880.

No. 161.—Trade with India :—

| Year. | Imports. | Exports. | Total trade. |
|---|---|---|---|
| | £ | £ | £ |
| 1880 | 653 | 19,611 | 20,264 |
| 1881 | 27,871 | 142,053 | 169,924 |
| 1882 | 72,739 | 345,312 | 418,051 |
| 1883 | 108,154 | 310,608 | 418,762 |
| 1884 | 128,185 | 293,952 | 422,137 |
| 1885 | 117,208 | 122,066 | 239,274 |
| 1886 | 100,905 | 89,299 | 190,204 |

Goods chiefly imported from India.

Castor oil is the article most largely imported from India, the value of oil received during 1886 being £32,749. There is also a large trade in woolpacks, the importations amounting to £25,833; and in bags and sacks, of which goods to the amount of £8,306 were received. The only other articles imported during 1886 in any quantity were rice, £7,307, and tea, £6,463. The import of wheat during the year amounted to only £3,314, but the large development of wheat-growing of late years in India makes it not improbable that the importation of this cereal will be largely increased in the near future.

The outward trade with India is confined almost entirely to coal and copper; of the former the export was valued at £20,277, and of the latter £50,269. Horses, valued at £4,785, and wool at £2,863 were also exported—the four items mentioned comprising a value of £78,194, out of a total export trade during 1886 of £89,299.

The great falling off noticeable since 1882-3 is due to the decline in the copper trade, and in the amount of gold coin exported, which, in the year 1882 was £242,258, and in 1883 £232,862.

Chief trade of Colony with Britain and dependencies.

To what extent the trade of the Colony follows the British flag may be gathered from the following figures, which show not only the value of the trade of New South Wales with Great Britain and her dependencies during the past ten years, but also the proportion which that trade bears to the whole.

No. 162.—Trade with Great Britain and British Possessions:—

| Year. | Imports from Great Britain and British possessions. | Per-centage of total imports. | Exports to Great Britain and British possessions. | Per-centage of total exports. |
|---|---|---|---|---|
| | £ | | £ | |
| 1877 | 13,621,916 | 91·70 | 12,999,571 | 96·59 |
| 1878 | 13,694,884 | 90·66 | 12,650,708 | 96·34 |
| 1879 | 13,032,949 | 89·86 | 12,573,104 | 95·71 |
| 1880 | 13,021,783 | 91·85 | 15,210,314 | 97·00 |
| 1881 | 15,797,631 | 89·82 | 15,008,960 | 92·05 |
| 1882 | 19,269,165 | 89 73 | 16,470,481 | 93·18 |
| 1883 | 19,383,052 | 90·03 | 18,670,373 | 92.15 |
| 1884 | 20,942,254 | 90·42 | 17,221,650 | 92·69 |
| 1885 | 21,299,715 | 89·74 | 14,794,052 | 88·33 |
| 1886 | 18,813,492 | 89·70 | 14,088,846 | 90·58 |

## *FOREIGN TRADE.*

Uniform increase of foreign trade.

The value of the trade of the Colony with countries other than those under British dominion shows a large increase since 1880, as will be at once seen from the subjoined table. The import trade is marked by a fairly uniform increase, while the export trade, though less regular, showed proportionately a more considerable increase. The value of the exports during 1881 increased £826,357, an advance due almost entirely to the increase in the trade with the United States. The large expansion found in the subsequent years arose from the establishment of direct trade with France and Belgium.

No. 163.—Foreign (non-British) Trade of New South Wales :—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1877 | 1,230,862 | 458,329 | 1882 | 2,200,734 | 1,206,874 |
| 1878 | 1,409,761 | 483,697 | 1883 | 2,139,789 | 1,591,900 |
| 1879 | 1,470,877 | 558,827 | 1884 | 2,218,662 | 1,355,640 |
| 1880 | 1,154,280 | 472,488 | 1885 | 2,437,746 | 1,956,055 |
| 1881 | 1,789,381 | 1,298,845 | 1886 | 2,160,056 | 1,467,367 |

## *THE UNITED STATES.*

United States largest foreign market.

The United States are the largest foreign markets of the Colony, the value of both the imports and exports far exceeding that of any other country. The import trade has been marked by a very uniform rate of increase, and during the past two years exceeded one million sterling. The export trade has, on the other hand, varied considerably. The largest increase in any one year was in 1881, when the exports amounted to £694,314 more than the previous year, the increase consisting almost entirely of gold, which was exported to the value of £647,323. Similarly, the increase in 1885 over 1884 is due to the same cause—the export of gold in the former year amounting to £680,700.

No. 164.—Trade with the United States of America :—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1877 | 481,565 | 108,273 | 1882 | 886,171 | 676,598 |
| 1878 | 622,261 | 123,805 | 1883 | 922,574 | 872,983 |
| 1879 | 546,630 | 211,206 | 1884 | 954,665 | 366,732 |
| 1880 | 387,056 | 172,648 | 1885 | 1,008,572 | 985,531 |
| 1881 | 587,865 | 866,962 | 1886 | 1,018,773 | 521,216 |

Class of goods imported from United States.

The imports comprise a large number of articles, amongst which the following are the most important, the values given being those for 1886 :—

| | |
|---|---|
| Timber—undressed, dressed and worked up | £193,272 |
| Breadstuffs | 96,216 |
| Hardware | 79,427 |
| Tobacco, cigars, &c. | 69,339 |
| Beer | 56,278 |
| Carriages, and carriage materials | 49,493 |
| Kerosene | 42,153 |
| Fish (preserved) | 40,488 |
| Watches and clocks | 39,502 |
| Machinery | 32,744 |
| Leather | 26,050 |
| Furniture | 25,726 |

The other articles imported are mostly manufactured goods.

Exports to America.

The exports to the United States are chiefly confined to a few articles of raw material, the produce of the Colony, the principal of which are gold, coal and shale, tin, and kangaroo skins. The only other goods exported in considerable quantities are opium and wool. During the year 1886 the amount of export of the articles mentioned above was :—

| | |
|---|---|
| Gold, coin | £229,137 |
| Coal | 176,991 |
| Tin | 49,169 |
| Skins | 29,176 |
| Shale | 11,253 |
| Opium | 9,600 |
| Wool | 4,572 |

Large export of gold to United States.

For some years past the export of gold to America has been very large, reaching the sum of £726,653 in the year 1885. This export commenced in 1880, and the value of the precious metal both coined and uncoined exported since the year named was :—

No. 165.—Value of Gold Exported to America during each year from 1880 to 1886.

| Year. | Value. | Year. | Value. |
|---|---|---|---|
| | £ | | £ |
| 1881 | 647,323 | 1884 | 106,732 |
| 1882 | 382,347 | 1885 | 726,653 |
| 1883 | 564,416 | 1886 | 229,137 |

The United States form one of the natural markets for the wool of the Colony; but, owing to the restrictions placed on its importation by the United States tariff, the trade in this commodity is extremely limited.

### *BELGIUM.*

Trade with Belgium.

The direct trade between this Colony and Belgium began in 1881, and may, to a large extent, be attributable to the International Exhibition held in Sydney during 1879–80. In the year mentioned, the combined imports and exports only amounted to £26,237, while in 1886 they had risen to £598,769, which cannot but be regarded as an enormous increase in so short a time. In point of value the Belgian trade of the Colony is larger than that of any other foreign country, the United States alone excepted, exceeding during 1886 that of Germany by £182,686, and that of France by £233,067.

Principal imports.

The goods imported from Belgium comprise a large number of articles. Iron in its various manufactures, and in bars, plate and wire, as well as galvanized sheets form the largest class. The total imports under this head in 1886 were little short of £75,000. Candles to the value of £22,527 were also imported, and glass of various kinds to the extent of £22,549. Besides these there were large quantities of cement, spirits, cigars, and starch imported.

Belgium a large purchaser of N.S.W. wool.

The outward trade with Belgium is confined almost entirely to wool, though some tallow is also exported. During 1886, the amount of washed wool sent to Belgian ports was 690,275 lb., valued at £31,734, and 13,304,755 lb. of greasy wool of the value of £387,232, or in all, wool to the amount of £418,966. Belgium is, therefore, next to Great Britain, the largest purchaser of New South Wales wool; for, though the export, both to Victoria and South Australia exceeds that to Belgium, it is merely nominal, as none of the wool is retained in these colonies for home use.

No. 166.—Trade with Belgium :—

| Year. | Imports. | Exports. |
|---|---|---|
| | £ | £ |
| 1881 | 21,579 | 4,658 |
| 1882 | 39,951 | 21,659 |
| 1883 | 31,162 | 160,330 |
| 1884 | 74,904 | 326,488 |
| 1885 | 195,318 | 399,549 |
| 1886 | 173,831 | 424,938 |

## *FRANCE AND NEW CALEDONIA.*

**The French trade.** The French trade has developed considerably since 1881, as will be seen by the subsequent table. The increase is due almost entirely to the establishment of direct communication between this Colony and the Republic by the Messageries Maritimes Company, but it has been accompanied by a corresponding falling off in the trade with New Caledonia, the chief dependency of France in the South Pacific. For though in 1881 the total value of French imports and exports amounted to only £65,833 as against £365,702 in 1886, those of New Caledonia fell during the corresponding period from £372,926 to £176,284.

**Class of goods imported from France.** Wearing apparel and drapery form the largest class of imports from France; the imports of drapery amounted in 1886 to £58,294, of apparel £18,670, and of boots to £17,540. Next in importance are wines and spirits—the import of the former amounted to £18,728, and of the latter to £38,135. Oil to the value of £8,542; tobacco and cigars, £8,363; watches and clocks, £7,019—are the only other goods largely imported. Considerable quantities of French goods are imported from Great Britain, but the indirect trade in these will probably soon be superseded by direct trade, and the cost of commission and double handling thus saved to the Colony.

Wool chief export to France.

Wool forms the chief export to France. The value exported during 1886 was £70,298. Copra, the produce of the South Sea Islands, comes next in value, at £41,590. The only other exports of importance are skins, mainly of sheep, £16,129; pearl shell, £5,873; and shale, £3,632.

No. 167.—Trade with France:—

| Year. | Imports. | Exports. |
|---|---|---|
| | £ | £ |
| 1881 | 64,118 | 1,715 |
| 1882 | 98,176 | 9,744 |
| 1883 | 211,722 | 24,786 |
| 1884 | 218,755 | 183,890 |
| 1885 | 344,231 | 142,104 |
| 1886 | 216,193 | 149,509 |

New Caledonian trade.

As already pointed out, New Caledonia forms an important market for the produce of the Colony, though its value has been considerably affected by the establishment of a regular communication between France and her dependency. The trade with New Caledonia reached its highest point in 1882, when produce was imported into New South Wales to the value of £273,370, and exported to the amount of £228,280. Since that year the imports and exports both show a very considerable decline, as will be seen below.

No. 168.—Value of Trade with New Caledonia:—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1877 | 151,684 | 165,838 | 1882 | 273,370 | 228,280 |
| 1878 | 140,873 | 151,516 | 1883 | 152,096 | 212,528 |
| 1879 | 159,599 | 158,193 | 1884 | 107,509 | 210,552 |
| 1880 | 122,299 | 181,703 | 1885 | 82,181 | 153,094 |
| 1881 | 188,745 | 184,181 | 1886 | 64,952 | 111,332 |

## *GERMANY.*

**Trade with Germany.**

A large trade has been maintained with Germany since 1879, when direct communication practically commenced, but the export trade is still comparatively small and variable, though a rapid increase may be anticipated from the facilities afforded by the German Lloyds' line of steamers now trading between Hamburg and Sydney.

The following list shows the values of the principal articles imported during 1886. The only other articles besides these, of which the import was considerable, were paper and stationery, turnery, starch, and glassware—

| | |
|---|---|
| Cement | £39,197 |
| Musical Instruments | 38,585 |
| Apparel, drapery, boots, &c. | 37,858 |
| Iron and iron manufactures, including hardware | 26,614 |
| Spirits | 25,196 |
| Sewing machines | 17,347 |
| Tobacco and cigars | 16,438 |
| Beer | 15,161 |
| Fancy goods and toys | 13,913 |

**Wool chief export to Germany.**

The exports consisted almost entirely of wool, the value of which, in 1886, was £44,127, out of a total export of £54,471. The remainder were chiefly ore and stone for treatment; quartz being exported to the value of £5,140.

No. 169.—Trade with Germany:—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1879 | 32,436 | 4,775 | 1883 | 213,709 | 7,947 |
| 1880 | 47,169 | ......... | 1884 | 337,881 | 43,979 |
| 1881 | 124,910 | 11,993 | 1885 | 372,557 | 29,511 |
| 1882 | 180,951 | 11,661 | 1886 | 361,612 | 54,471 |

## *CHINA.*

Trade with China.

The only other country whose trade with New South Wales reaches a considerable value is China. The imports and exports credited to Hongkong, however, belong in reality to the country generally, and the diminution which is seen in the China trade since 1881, is to be attributed in no small degree to the transference of part of the trade from the ports of the Empire to Hongkong. Still, when allowance is made on this score, it will be found that the actual loss of trade is by no means inconsiderable. The main import from China is tea, and no perceptible decline is observable in the consumption of the article; but the total import has fallen off, owing to a decrease in the quantity required for re-export, and in this respect denotes a loss to the Colony.

Small direct export trade.

The direct export trade has never been large. Most of the goods intended for Chinese consumption pass through Hongkong, and do not appear as exports to China.

No. 170.—Trade with China :—

| Year. | Imports. | Exports. | Year. | Imports. | Exports. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1877 | 316,441 | 42,490 | 1882 | 358,783 | 28,958 |
| 1878 | 245,263 | 26,054 | 1883 | 259,108 | 21,351 |
| 1879 | 350,725 | 33,210 | 1884 | 357,208 | 21,741 |
| 1880 | 358,129 | 14,844 | 1885 | 303,595 | 21,114 |
| 1881 | 466,830 | 19,753 | 1886 | 195,930 | 16,462 |

## *TRADE WITH ALL COUNTRIES.*

The amount of imports and exports of each country, in proportion to the total, during the ten years which closed with 1886 is shown in the following tables. As already pointed out, the border colonies of Victoria and South Australia appear more advantageously than their importance warrants, owing to the large amount of trade merely passing through their territory for shipment to Great Britain, while the trade to the last named country, as shown on the table, is less than the truth.

No. 171.—Imports—Per-centage of the Imports from Each of the Principal Countries :—

| Year. | British Possessions. | | | | | | | Foreign States. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Great Britain. | Victoria. | Queensland. | South Australia. | New Zealand. | Other Colonies or Possessions. | Total British Possessions. | United States. | France. | Germany. | Belgium. | China. | Other Foreign States. | Total Foreign States. |
| 1877 | 43·57 | 17·04 | 16·67 | 5·46 | 1·50 | 7·46 | 91·70 | 3·25 | 0·13 | …… | 0·20 | 2·13 | 2·59 | 8·30 |
| 1878 | 44·08 | 19·18 | 14·23 | 5·89 | 1·63 | 5·65 | 90·66 | 4·12 | 0·25 | …… | 0·12 | 1·62 | 3·23 | 9·34 |
| 1879 | 46·53 | 15·40 | 15·21 | 4·97 | 1·98 | 5·77 | 89·86 | 3·77 | 0·36 | 0·22 | …… | 2·42 | 3·37 | 10·14 |
| 1880 | 46·11 | 15·42 | 15·70 | 4·87 | 3·25 | 6·50 | 91·85 | 2·73 | 0·27 | 0·33 | …… | 2·52 | 2·29 | 8·15 |
| 1881 | 51·08 | 13·73 | 12·35 | 3·94 | 2·68 | 6·04 | 89·82 | 3·34 | 0·36 | 0·71 | 0·12 | 2·66 | 2·99 | 10·18 |
| 1882 | 51·96 | 12·90 | 10·01 | 4·74 | 3·43 | 6·69 | 89·73 | 4·14 | 0·46 | 0·85 | 0·18 | 1·67 | 2·97 | 10·27 |
| 1883 | 49·36 | 13·99 | 13·71 | 3·90 | 2·71 | 6·36 | 90·03 | 4·29 | 0·98 | 0·99 | 0·14 | 1·20 | 2·37 | 9·97 |
| 1884 | 49·32 | 13·23 | 12·88 | 4·33 | 3·81 | 6·85 | 90·42 | 4·12 | 0·95 | 1·46 | 0·32 | 1·54 | 1·19 | 9·58 |
| 1885 | 50·07 | 13·96 | 12·27 | 3·75 | 3·79 | 5·90 | 89·74 | 4·25 | 1·45 | 1·57 | 0·82 | 1·28 | 0·89 | 10·26 |
| 1886 | 49·81 | 13·30 | 12·24 | 3·95 | 4·53 | 5·87 | 89·70 | 4·85 | 1·03 | 1·72 | 0·83 | 0·93 | 0·94 | 10·30 |

No. 172.—Exports—Per-centage of Exports to Each of the Principal Countries :—

| Year. | British Possessions. | | | | | | | Foreign States. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Great Britain. | Victoria. | Queensland. | South Australia. | New Zealand. | Other Colonies or Possessions. | Total British Possessions. | United States. | France. | Germany. | Belgium. | China. | Other Foreign States. | Total Foreign States. |
| 1877 | 44·72 | 28·96 | 13·60 | 2·62 | 3·65 | 3·04 | 96·59 | 0·80 | 0·10 | ... | ... | 0·31 | 2·20 | 3·41 |
| 1878 | 42·00 | 28·12 | 10·60 | 8·02 | 4·50 | 3·10 | 96·34 | 0·98 | 0·07 | 0·04 | ... | 0·19 | 2·38 | 3·66 |
| 1879 | 39·20 | 31·81 | 11·00 | 5·88 | 4·86 | 2·96 | 95·71 | 1·60 | 0·17 | 0·03 | ... | 0·24 | 2·25 | 4·29 |
| 1880 | 47·98 | 29·19 | 8·70 | 5·30 | 3·35 | 2·48 | 97·00 | 1·10 | ...... | ... | ... | 0·09 | 1·81 | 3·00 |
| 1881 | 46·36 | 24·85 | 12·02 | 2·80 | 2·62 | 3·40 | 92·05 | 5·31 | 0·01 | 0·07 | 0·03 | 0·12 | 2·41 | 7·95 |
| 1882 | 41·35 | 21·40 | 17·04 | 6·15 | 2·57 | 4·67 | 93·18 | 3·83 | 0·05 | 0·06 | 0·12 | 0·16 | 2·60 | 6·82 |
| 1883 | 48·78 | 20·59 | 11·42 | 4·80 | 1·76 | 4·80 | 92·15 | 4·30 | 0·12 | 0·04 | 0·80 | 0·10 | 2·49 | 7·85 |
| 1884 | 41·36 | 22·45 | 12·85 | 8·08 | 2·73 | 5·22 | 92·69 | 1·98 | 1·00 | 0·23 | 1·75 | 0·12 | 2·23 | 7·31 |
| 1885 | 43·54 | 20·60 | 12·98 | 4·86 | 2·20 | 4·15 | 88·33 | 5·88 | 0·85 | 0·17 | 2·40 | 0·12 | 2·25 | 11·67 |
| 1886 | 38·74 | 23·76 | 10·73 | 10·20 | 2·75 | 4·40 | 90·58 | 3·35 | 0·96 | 0·35 | 2·75 | 0·08 | 1·93 | 9·42 |

Imports set down at Sydney value.

For Customs purposes imports are, as a general rule, set down at their Sydney value. Such too is the plan followed in regard to exports. Taking into consideration the circumstances of the Colony, the system is a just one; for, assuming that goods imported have to be paid for in goods exported, the imports, if taken at their value when shipped, would be undervalued to the amount of the freight and charges incurred. In order, therefore, to establish a fair comparison between the imports and exports, each must be taken at its value in the Colony. Under normal conditions, the value of the trade inwards and outwards should be virtually equal.

If the freight-earning vessels were owned in the Colony the excess would be on the side of the imports, but as comparatively little of the tonnage is owned in New South Wales, the freight earned is small. On the contrary, a certain quantity of goods must be exported to pay for the carriage of the goods imported, and the amount of such represents the difference in the value of the goods purchased by the exports, as they leave the country, of which they are the produce, and the value of the same goods landed in this Colony.

Imports exceed exports.

The imports of the Colony, taken over a series of years, greatly exceed the exports. The causes of this excess are chiefly two—the flow of British money to the Colony for investment, and the proceeds of loans floated by the Government for the purpose of carrying out public works. Were these importations to cease, the exports of New South Wales would exceed the imports; for, not only would the Colony be required to send out the value of the goods imported, with their freight to its shores, but also the amount of interest payable on loans, the earnings of money sent here for investment, and the incomes derived by persons living abroad, from property held in the Colony. Exact information has not been procurable on either of these heads, but some idea of the cause of the excess of imports may be gathered from the table No. 134 given on page 270, showing the excess of imports in each year, and the amount expended from loans. It will be seen that during the past ten years the aggregate excess of imports was not less than £26,548,908, while the expenditure from loans was £24,585,141.

## *TARIFF.*

The tariff in force in New South Wales is more simple in character than that of any other country except Great Britain. At the close of 1886, it comprised specific duties on 175 articles, with an *ad valorem* duty of 5 per cent. on the remainder—certain articles, about 100 in number, comprising chiefly food, raw material, and agricultural appliances alone excepted. Since then, however, the tariff has been greatly modified. The list of specific duties has been reduced to 65, and the *ad valorem* duties have been entirely abolished, the amended scale of duties coming into force on the 1st October, 1887.

**Customs Duties—Spirits.**

The chief articles from which Customs revenue is derived, are fermented and spirituous liquors, tobacco, tea, and sugar. The revenue from spirits stood at 10s. per gallon until 1879, when it was raised to 12s., and in 1887, the duty was fixed at 14s. per gallon. The revenue derived from imported spirits during the past ten years, was :—

No. 173.—Revenue derived from Imported Spirits.

| Year. | Quantity on which duty was paid. | Duty. | Amount of duty collected. |
|---|---|---|---|
| | Gallons. | | £ |
| 1877 | 1,012,806 | 10s. | 506,403 |
| 1878 | 1,089,191 | 10s. | 544,596 |
| 1879 | 1,031,989 | 10s. and 12s. | 521,273 |
| 1880 | 999,744 | 12s. | 599,848 |
| 1881 | 1,103,101 | 12s. | 661,861 |
| 1882 | 1,154,720 | 12s. | 692,832 |
| 1883 | 1,194,650 | 12s. | 716,790 |
| 1884 | 1,239,495 | 12s. | 743,627 |
| 1885 | 1,204,790 | 12s. | 722,873 |
| 1886 | 1,161,628 | 12s. | 696,977 |

**Spirits subject to excise.**

Colonial distilled spirits are subject to an excise equal to the duty on imported spirits. The revenue derived from this source is declining. In 1884, the quantity subject to excise was 17,709 gallons, on which, £10,625 was paid. In the following year the quantity fell to 14,242 gallons, and the amount of excise to £8,545. In 1886, the quantity fell still further, being only 9,733 gallons, and the excise £5,846.

Still wine is subject to an import duty of 5s. per gallon, and sparkling wine to 10s. per gallon. The import of the first named is less now than it was ten years ago, but, owing to the increase in the duty in 1879 from 4s. to 5s. per gallon, the Customs revenue has been fairly maintained.

Australian wine checks import.

The growing favour in which Australian wine is held will probably have the effect of checking any considerable importations of foreign wine, and no large increase in the amount of duty, beyond what is now received from such wine, can therefore be expected. The duty on sparkling wine was raised to 10s. per gallon in 1879, at which rate it now remains. The quantity imported shows a fair increase during the past few years; but the recent general depression having probably limited the amount of money available for luxuries of this kind, the duty paid in 1886 fell below that of some previous years.

Beer imported.

The import of ale and beer was larger during 1886 than in any previous year, reaching 2,075,046 gallons, of which 697,405 gallons were in wood, and 1,377,641 in bottle—the duty on the former being 6d. per gallon, and on the latter 9d.

The total revenue derived from the import duty on beer during 1886 was £69,097. Amongst other alterations in the tariff during the year 1887, was the imposition of an excise duty on beer made in the Colony. The duty is at the rate of 3d. per gallon, and is estimated by the Treasurer to reach the sum of £168,750 per annum. As a set-off against the duty thus imposed, those levied on hops and malt have been removed.

Tobacco duty.

The duties levied on tobacco imported into the Colony during 1886 were, on the manufactured article, 3s. per pound; on tobacco for manufacturing purposes, 1s. per pound; on the leaf, 3s.; and on cigars and cigarettes, 6s. The excise on tobacco made in the Colony was 1s. per pound, and on cigars, 2s. 6d. The excise duty on manufactured tobacco was, however, increased during 1887, and now stands at 1s. 3d. The following table shows the amount of revenue obtained during the last ten years from the import duties on this article.

No. 174.—Revenue derived from Import Duties levied on Tobacco, &c. :—

| Year. | Manufactured. |  | Leaf. |  | Unmanufactured. |  | Cigars. |  | Cigarettes. |  |
|---|---|---|---|---|---|---|---|---|---|---|
|  | Duty per pound. | Amount collected. | Duty per pound. | Amount collected. | Duty per pound. | Amount collected. | Duty per pound. | Amount collected. | Duty per pound. | Amount collected. |
|  | s. d. | £ | s. d. | £ | s. d. | £ | s. d. | £ | s. d. | £ |
| 1877 | 2 0 | 23,251 | 1 0 | 57,483 | ... | Included with leaf. | 5 0 | 21,798 | ... | ...... |
| 1878 | 2 0 | 26,114 | 1 0 | 58,211 | ... | " " | 5 0 | 24,602 | ... | ...... |
| 1879 | 2 0<br>2 6 | 27,236 | 1 0<br>1 3 | 38,326 | ... | " " | 5 0 | 27,597 | ... | ...... |
| 1880 | 2 0<br>2 6 | 24,824 | 1 0<br>1 3 | 43,555 | ... | " " | 5 0 | 29,017 | ... | ...... |
| 1881 | 2 0 | 30,672 | 1 0 | 56,269 | ... | " " | 5 0 | 39,886 | ... | ...... |
| 1882 | 2 0 | 31,113 | 1 0 | 52,762 | ... | " " | 5 0 | 44,782 | ... | ...... |
| 1883 | 2 0 | 33,411 | 1 0 | 41,739 | ... | " " | 5 0 | 53,744 | ... | ...... |
| 1884 | 2 0<br>2 6<br>3 0 | 44,248 | 3 0 | 15,889 | 1 0 | *15,861 | 6 0 | 58,984 | 6 0 | 4,064 |
| 1885 | 3 0 | 50,240 | 3 0 | 1,567 | 1 0 | 33,624 | 6 0 | 65,889 | 6 0 | 8,962 |
| 1886 | 3 0 | 56,802 | 3 0 | 1,326 | 1 0 | 23,076 | 6 0 | 67,058 | 6 0 | 11,741 |

* Part included with leaf.

Excise on tobacco.

Excise duties were first levied on tobacco manufactured in the Colony in 1884, and the amount collected since then has been :—

| | |
|---|---|
| 1884 | £68,000 |
| 1885 | 106,658 |
| 1886 | 102,212 |

The revenue derived from cigars has been trifling, in no year reaching £1,000; thus:—

| | |
|---|---|
| 1884 | £490 |
| 1885 | 863 |
| 1886 | 667 |

It will be seen from the table No. 174, given above, that the revenue derived from the imported leaf has steadily declined, its place being supplied by leaf grown in the Colony. To meet this falling off, the alteration in the excise duty levied on colonial-made tobacco entered for home consumption was increased, as already stated, to 1s. 3d. per pound. As the American leaf is subject to a duty of 1s. per pound, were this leaf used exclusively in the manufacture of tobacco in the local factories, the actual duty paid on the finished product would have been, previous to the alteration in the tariff, 2s. per pound, as against 3s. for the imported article. Such, however, is not the case—large quantities of locally-grown leaf are used, and the absolute amount of duty paid on the tobacco made in the Colony was 1s. 3¾d. in 1885, and 1s. 3¼d. in 1886.

Duty on tea.

The duty on tea has remained at 3d. per pound, and the amount of revenue per head derived from the duty has varied very little from year to year. The revenue received from this source for the last ten years was :—

No. 175.—Revenue derived from Duty on Tea.

| Year. | Amount. | Year. | Amount. |
|---|---|---|---|
| | £ | | £ |
| 1877 | 67,370 | 1882 | 87,829 |
| 1878 | 63,259 | 1883 | 75,719 |
| 1879 | 83,793 | 1884 | 100,053 |
| 1880 | 74,042 | 1885 | 98,915 |
| 1881 | 86,212 | 1886 | 105,979 |

Duty on sugar.

Refined sugar coming into the Colony is subject to a duty of 6s. 8d. per cwt., but the quantity of this class of sugar imported is comparatively small, scarcely amounting to 250 tons during 1886. Duty is levied on raw sugar, at the rate of 5s. per cwt., but notwithstanding this duty, and the large area of the Colony adapted for sugar-growing, the imports are considerable. The question of sugar-growing in the Colony is discussed under the head of agriculture; but an inspection of the subsequent table, showing the amount of duty paid on raw sugar, will give a clear indication of the state of production in the Colony during the last ten years.

No. 176.—Amount of Duty paid on Raw Sugar, 1878–86 :—

| Year. | Quantity. | Amount. | Year. | Quantity. | Amount. |
|---|---|---|---|---|---|
| | Cwt. | £ | | Cwt. | £ |
| 1878 | 265,178 | 66,295 | 1883 | 203,496 | 50,874 |
| 1879 | 269,312 | 67,328 | 1884 | 591,362 | 147,908 |
| 1880 | 228,171 | 57,043 | 1885 | 554,064 | 138,516 |
| 1881 | 187,551 | 46,887 | 1886 | 484,591 | 121,148 |
| 1882 | 182,356 | 45,589 | | | |

Duties on other articles

Specific duties are levied on other articles besides those mentioned, to the number of 49, according to the tariff of 1887; the articles which yield most revenue being dried fruit, rice, explosives, bacon and hams, cheese, butter, candles, cement, coffee, fish, galvanized iron, iron wire, condensed milk, kerosene oil, opium, salt, and timber.

*Ad valorem* duties of 5 per cent. were re-imposed, as above mentioned, during 1886, having been abolished for nearly fourteen years. It was intended that they should be levied for a period of three years, but after remaining in force for 18 months they were again abolished.

The amount of revenue collected by the Customs, including excise, during each of the last ten years, is given below.

No. 177.—Revenue collected by the Customs Department during the Ten years, 1877–86:—

| Particulars of receipt. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Wines and spirits | 545,755 | 585,477 | 556,158 | 641,085 | 708,923 | 744,488 | 767,949 | 807,419 | 785,948 | 751,581 |
| Ale and beer | 35,666 | 33,864 | 37,746 | 31,567 | 34,579 | 41,574 | 46,972 | 53,209 | 61,202 | 69,097 |
| Tobacco | 102,532 | 108,928 | 93,159 | 97,396 | 126,827 | 128,658 | 128,894 | 207,037 | 267.804 | 269,065 |
| Tea | 67,370 | 63,259 | 83,793 | 74,042 | 86,212 | 87,829 | 75,719 | 100,053 | 98,915 | 105,979 |
| Coffee and chicory | 9,618 | 9,353 | 9,037 | 10,983 | 10,610 | 10,850 | 10,638 | 13,406 | 13,543 | 13,188 |
| Sugar | 54,139 | 67,748 | 69,327 | 60,055 | 50,949 | 49,234 | 54,175 | 153,894 | 144,449 | 125,859 |
| Methylated spirits | 804 | 1,150 | 1,038 | 1,102 | 1,340 | 1,673 | 1,776 | 1,980 | 2,116 | 2,407 |
| Opium | 9,173 | 9,349 | 10,514 | 10,940 | 13,068 | 12,960 | 14,135 | 20,413 | 23,075 | 22,148 |
| Rice | 9,738 | 11,325 | 13,585 | 10,300 | 15,069 | 15,224 | 13,855 | 17,193 | 15,835 | 17,533 |
| Malt and hops | 11,870 | 13,710 | 13,281 | 13,390 | 15,753 | 18,939 | 17,266 | 18,304 | 20,409 | 30,366 |
| Dried fruits | 43,403 | 37,993 | 32,382 | 37,027 | 57,857 | 51,522 | 50,597 | 62,017 | 54,400 | 50,919 |
| Specific duties | 167,559 | 174,742 | 167,770 | 176,162 | 244,345 | 280,015 | 266,580 | 336,119 | 380,673 | 429,157 |
| Ad valorem | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | 277,227 |
| Pilotage | 15,358 | 17,776 | 18,005 | 14,462 | 20,463 | 26,455 | 30,508 | 32,124 | 31,739 | 31,716 |
| Harbour and lights rates | 9,073 | 10,352 | 9,960 | 8,197 | 10,330 | 13,553 | 14,599 | 16,249 | 16,389 | 15,610 |
| Removal dues | 2,845 | 3,024 | 2,997 | 2,022 | 2,698 | 4,034 | 4,377 | 4,319 | 4.290 | 4.703 |
| Tonnage and wharfage rates | ...... | ...... | ...... | 6,974 | 14,177 | 8,909 | 7,096 | 7,895 | 7,396 | 6,973 |
| Tax on Chinese | ...... | ...... | ...... | ...... | 960 | 8,520 | 12,200 | 10,740 | 10,600 | 12,840 |
| Bonded warehouse license fees | 5,580 | 5,907 | 6,247 | 6,097 | 7,031 | 6,350 | 6,565 | 6,961 | 7,164 | 8,662 |
| Miscellaneous receipts | 3,420 | 3,835 | 2,251 | 2,115 | 2,973 | 3,476 | 3,962 | 6,859 | 6,318 | 5,945 |
| Total | 1,093,903 | 1,157,792 | 1,127,250 | 1,203,916 | 1,424,165 | 1,514,263 | 1,527,863 | 1,876,191 | 1,952,265 | 2,250,975 |

Revenue from Customs larger than other colonies.

Though more lightly taxed through the Customs than any of the other Australasian Colonies, the revenue derived from this source is larger than that of any colony, Victoria not excepted. During 1886, the revenue derived from the Custom-house in each Colony in Australasia was:—

| | |
|---|---|
| New South Wales | £2,250,275 |
| Victoria | 2,004,460 |
| Queensland | 965,754 |
| South Australia | 436,114 |
| Western Australia | 164,048 |
| New Zealand | 1,311,808 |
| Tasmania | 276,275 |

# PART XII.

## Stock.

THE rapid settlement of the Colony has, in a great measure, been due to the fitness of its soil, vegetation, and climate, for the successful rearing of the principal species of stock which supply the wants of civilized men, and so largely contribute to the wealth of nations.

For many years it was believed that a considerable part of Australia was quite unsuited for stock, and this opinion was fostered by the accounts of the earlier explorers, who reported that the interior of the continent was a vast desert. These apprehensions were soon dispelled, and the difficulties which nature offered to the successful rearing of stock disappeared before the energy of the colonists. One thing particularly favoured the settlers. Though the number of native animals was very considerable, comprising chiefly marsupials of little commercial utility, there existed happily no large species of carnivora which could seriously interfere with the increase in the flocks.

Humble beginnings of stock-breeding.

The beginnings of pastoral enterprise in the Colony were very humble. The whole stock of the community which accompanied Captain Phillip comprised only 1 bull, 4 cows, 1 calf, 1 stallion, 3 mares, 3 foals, 29 sheep, 12 pigs, and a few goats; and although the whole of the present flocks and herds of Australia have not sprung from these animals alone, it will be seen on how small a scale the business of stock-raising was first attempted.

As soon as the produce of stock began to exceed the demand for food, the increase in number became very rapid, and, at the separation of Victoria, the stock of the Colony numbered 13,059,324 sheep, 1,738,965 cattle, 132,437 horses, and 61,631 pigs.

The severance of Victoria, then the fairest province of the mother Colony, involved a loss of 6,589,923 sheep, 390,923 cattle, 20,086 horses, and 7,372 pigs, so that in 1851 the flocks of New South Wales numbered 6,469,401 sheep, 1,348,042 cattle, 110,351 horses, and 54,259 pigs.

**Separation of Queensland.**

After the separation of Queensland, the numbers of each kind of live stock within the existing boundaries of the Colony were 5,615,054 sheep, 2,271,923 cattle, 233,220 horses, and 146,091 pigs.

From the numbers just given the sheep had, at the beginning of 1887, increased to 39,169,304, the cattle had declined to 1,367,844 the horses had increased to 361,663, and the pigs to 209,576.

## *SHEEP.*

The following table, showing the numbers at the close of each year since the separation of Queensland, illustrates the progress of sheep-breeding.

No. 178.—Number of Sheep in New South Wales :—

| Year. | Number. | Year. | Number. | Year. | Number. |
|---|---|---|---|---|---|
| 1861 | 5,615,054 | 1870 | 16,308,585 | 1879 | 30,062,910 |
| 1862 | 6,145,651 | 1871 | 16,278,697 | 1880 | 35,398,121 |
| 1863 | 7,790,969 | 1872 | 17,566,048 | 1881 | 36,591,946 |
| 1864 | 8,271,520 | 1873 | 18,990,595 | 1882 | 36,114,814 |
| 1865 | 8,132,511 | 1874 | 22,797,416 | 1883 | 37,915,510 |
| 1866 | 11,562,155 | 1875 | 25,353,924 | 1884 | 31,660,321 |
| 1867 | 13,909,574 | 1876 | 25,269,755 | 1885 | 37,820,906 |
| 1868 | 15,080,624 | 1877 | 21,521,632 | 1886 | 39,169,304 |
| 1869 | 14,989,923 | 1878 | 25,479,484 | | |

The ratio of annual increase for the whole period is 7·7 per cent. Divided into quinquennial periods the ratios are—

| | | | |
|---|---|---|---|
| 1861–6 | increase | 13·7 | per cent. |
| 1866–71 | „ | 7·7 | „ |
| 1871–6 | „ | 8·5 | „ |
| 1876–81 | „ | 7·7 | „ |
| 1881–6 | „ | 1·4 | „ |

Natural law of increase.

The operation of the natural law regulating the increase of species, viz.—that the ratio of increase is inversely as the increase in the number of individuals—is only partially observable in these figures, though the tendency of the rate of increase to decline as the numbers advance is clear enough.

Causes modifying rate of increase.

Many causes tend to modify the rate of increase in the flocks of the Colony, but it will only be necessary to refer to the four principal factors. The character of the seasons is the largest factor in determining the increase of sheep, a period of drought, or partial drought, especially if it extend over several years, having a most disastrous effect; though some compensation is found in the prolific years, which, as a rule, succeed bad ones. It is impossible to accurately estimate the losses from drought, but how great these must be may be gathered from the figures given in table No. 178. Thus in the four years, from 1880 to 1884, there was not only a loss of the natural increment, which in ordinary seasons would have amounted to about ten million sheep, but there was an actual loss of 3,737,800. The second cause, which tends to check the increase of sheep, is disease, but fortunately the flocks of the Colony have been entirely free from any serious disease for many years. The greatest precautions are taken to prevent the spread of infection, and the legislative enactments to secure this end are very stringent. Importation of stock from foreign countries is absolutely prohibited, and sheep arriving by sea from other Australian colonies are detained in quarantine for the time required to allow of their being dipped, before they are permitted to proceed to their destination. The other causes militating against a rapid increase, are the demands of the other colonies, and the food supply of New South Wales itself.

Requirements of other colonies keep down sheep.

The requirements of the neighbouring colonies for sheep for slaughtering and breeding or fattening purposes are considerable, and tend to prevent that rapid growth formerly observable in the flocks of the Colony. Victoria is the chief customer for fat sheep, and Queensland for store sheep, but the importations, especially from the latter colony, are also considerable. The export and import of sheep during the ten years, 1877-1886, is shown on the following table.

No. 179.—Export and Import of Sheep, 1877–86 :—

| Year. | Exported. | Imported. | Year. | Exported. | Imported. |
|---|---|---|---|---|---|
| 1877 | 751,412 | 330,062 | 1882 | 856,190 | 207,538 |
| 1878 | 578,457 | 495,868 | 1883 | 1,006,227 | 205,558 |
| 1879 | 978,537 | 160,123 | 1884 | 1,942,204 | 404,371 |
| 1880 | 1,417,552 | 81,742 | 1885 | 1,237,155 | 1,134,439 |
| 1881 | 1,068,362 | 198,329 | 1886 | 1,247,514 | 288,225 |

Local demand formerly small.

The local demand for sheep for slaughtering was, until recent years, so small compared with the supply as not to appreciably affect the increase of the flocks of the Colony. Such, however, is not now the case, and the annual demand for slaughtering purposes is about 6 per cent. of the number of sheep depastured, and is, therefore, almost equal to half the annual cast. The question of the supply of sheep in the light of the possible demands of the future is elsewhere dealt with, and it will be seen that enormous as are the numbers of stock in this and the neighbouring colonies, every year reduces the margin between the supply and demand.

Stock carrying capacity of Colony.

The stock-carrying capabilities of the Colony are very difficult to estimate, as by far the greater portion of the country is yet in its natural state. Improvements, such as a better system of water conservation and irrigation, an intelligent extension of the salt-bush, cotton-bush, and other drought resisting shrubs and natural grasses, and the cultivation of artificial fodder, are gradually being effected, and will indefinitely extend the capacity of the Colony for supporting stock of all descriptions.

Sheep in each colony.

The following table gives the number of sheep compared with the respective areas of the Australasian Colonies, and shows the progress made by each in sheep farming.

No. 180.—Sheep-breeding in Australasia :—

| Colony. | Area in acres. | No. of Sheep. | No. of acres per sheep. | Proportion of total number depastured in each colony. |
|---|---|---|---|---|
| New South Wales | 198,848,000 | 39,169,304 | 5·07 | 45·36 |
| Victoria ............ | 56,245,760 | 10,770,403 | 5·22 | 12·39 |
| Queensland......... | 578,361,600 | 9,690,445 | 44·15 | 11·22 |
| South Australia ... | 678,400,000 | 6,696,406 | 86·37 | 7·76 |
| Western Australia | 427,838,080 | 1,809,071 | 375·00 | 2·10 |
| Tasmania............ | 16,777,600 | 1,608,946 | 10·43 | 1·86 |
| New Zealand ...... | 66,817,920 | 16,677,445 | 4·01 | 19·31 |
| Total ......... | 2,073,288,960 | 86,352,020 | ......... | 100·00 |

Colony stands first as sheep-breeder.

It will be seen that New South Wales stands first of all the colonies as a sheep-breeding country, as regards the number of its flocks, and first of the continental colonies as to the number of sheep depastured per unit of area. But whilst Victoria has nearly reached the limit of its natural capabilities in this particular direction, a considerable proportion of its area being now devoted to agriculture, New South Wales has not yet approached these limits. In Queensland, as in South Australia, sheep-breeding does not absorb the attention of pastoralists to the same extent that it does in New South Wales. The former colony is more adapted to the breeding of cattle; whilst in the southern and more settled districts of South Australia more attention is paid to the cultivation of cereals, its northern territory, like that of Queensland, being more adapted by nature to the breeding of cattle and horses. Western Australia is at present in the early stage of its colonisation; much of its area is still unknown, and it is therefore impossible to estimate its future as a sheep-breeding country. It may, however, be surmised that the southern portion of its immense territory will, in time to come, be stocked with sheep, whilst the northern portion will probably be found more suitable for the breeding of cattle and horses, on account of its resemblance to portions of Queensland and the northern territory of South Australia situated under the same latitude. At one time it was thought that cattle-breeding would occupy a position equal to that of sheep-breeding, but experience has shown that the general climatic conditions of New South Wales are more favourable to sheep than cattle. The Colony is probably destined to remain, as it now is, the great sheep-breeding centre of Australia.

**Breeds of sheep.**

The various breeds of sheep in the Colony are the merino, Lincoln, Leicester, Downs, and Romney Marsh, and crosses of the long-woolled breeds, principally with the merino.

In 1886 the respective numbers of merino and long-woolled sheep and cross-breeds, stood thus :—

| | |
|---|---|
| Merino.................................................. | 38,067,474 |
| Long-woolled sheep ................... .............. | 378,383 |
| Cross-breeds ........................................... | 723,447 |

Subdivided as per following table :—

(1) Merino.

*Combing.*

| | Rams. | Ewes. | Wethers. | Lambs. | Total. | |
|---|---|---|---|---|---|---|
| Pure and stud—Superfine | 41,223 | 613,915 | 144,018 | 145,452 | 944,618 | 6,085,831 |
| Ordinary | 108,735 | 2,289,751 | 1,430,715 | 1,312,012 | 5,141,213 | |
| Pure and stud—Medium | 64,463 | 844,117 | 369,755 | 443,322 | 1,721,657 | 12,411,334 |
| Ordinary | 159,485 | 4,847,472 | 3,304,493 | 2,378,227 | 10,689,677 | |
| Pure and stud—Strong... | 78,292 | 688,034 | 354,194 | 356,204 | 1,476,724 | 9,418,682 |
| Ordinary | 84,141 | 3,310,312 | 2,429,052 | 2,118,453 | 7,941,958 | |
| Total combing.............................................. | | | | | | 27,915,847 |

## (1) Merino—*continued.*

### *Clothing.*

| | Rams. | Ewes. | Wethers. | Lambs. | Total. | |
|---|---|---|---|---|---|---|
| Pure and stud—Superfine | 9,658 | 145,301 | 82,187 | 79,444 | 316,590 | |
| Ordinary | 42,104 | 497,183 | 353,674 | 219,528 | 1,112,489 | 1,429,079 |
| Pure and stud—Medium | 25,716 | 258,102 | 157,775 | 118,423 | 560,016 | |
| Ordinary | 124,703 | 2,198,484 | 1,436,558 | 1,137,980 | 4,897,725 | 5,457,741 |
| Pure and stud—Strong... | 62,805 | 280,370 | 135,160 | 140,778 | 619,113 | |
| Ordinary | 40,735 | 1,069,898 | 1,025,332 | 509,729 | 2,645,694 | 3,264,807 |
| Total clothing | | | | | | 10,151,627 |
| Total number of Merino sheep | | | | | | 38,067,474 |

## (2) Long-woolled sheep.

| | Rams. | Ewes. | Wethers. | Lambs. | Total. | |
|---|---|---|---|---|---|---|
| Pure and stud—Lincoln | 2,838 | 31,514 | 23,401 | 21,685 | 79,438 | |
| Ordinary | 3,184 | 67,633 | 40,664 | 31,045 | 142,526 | 221,964 |
| Pure and stud—Leicester | 1,987 | 27,341 | 21,695 | 12,938 | 63,961 | |
| Ordinary | 1,903 | 20,951 | 17,092 | 15,683 | 55,629 | 119,590 |
| Pure and stud—Downs... | 413 | 3,307 | 957 | 2,000 | 6,677 | |
| Ordinary | 1,260 | 7,285 | 7,712 | 3,710 | 19,967 | 26,644 |
| Pure and stud—Romney Marsh ...................... | 10 | 100 | 154 | 19 | 283 | |
| Ordinary | 428 | 4,466 | 3,715 | 1,293 | 9,902 | 10,185 |
| Total number, Long-woolled sheep.. | | | | | | 378,383 |

## (3) Crosses.

| | Rams. | Ewes. | Wethers. | Lambs. | Total. | |
|---|---|---|---|---|---|---|
| Crosses of the above breeds (long-woolled) with Merino principally | 3,180 | 301,116 | 249,865 | 169,286 | 723,447 | 723,447 |
| Grand total | | | | | | 39,169,304 |

No necessity for housing stock.

The climate of New South Wales admits of stock of all kinds being left in the open air, and there is no necessity for housing them during the winter months. The sheep are either kept in paddocks or under the care of shepherds, though on some stations they are both shepherded and paddocked.

| | |
|---|---|
| Paddocked | 36,682,801 |
| Shepherded | 1,504,904 |
| Paddocked and shepherded | 981,599 |
| | 39,169,304 |

It will be seen that a very large majority of the sheep are kept in paddocks. This system enables a large saving to be effected and, at the same time, facilitates the general management of the runs. Another advantage of the paddock system is that the percentage of lambs obtained under it is greater than among the shepherded sheep. In 1886, the general average of the lambs for the whole Colony was 64 per cent. for the paddocked sheep, and only 53¼ per cent. for the shepherded sheep.

## *WOOL.*

The wool clip.

The wool clip varies considerably from year to year, but averages 5 lb. 7½ oz. per sheep shorn in the grease. The amount of wool obtained during the ten years from 1877 to 1886 is shown below, the quantities representing the weight of clip if the sheep were shorn in the grease.

No. 181.—Wool clip of New South Wales :—

| Year. | Amount of wool. | Year. | Amount of wool. |
|---|---|---|---|
| | lb. | | lb. |
| 1877 | 122,152,601 | 1882 | 171,019,915 |
| 1878 | 141,560,140 | 1883 | 216,681,213 |
| 1879 | 149,293,185 | 1884 | 201,899,941 |
| 1880 | 181,766,450 | 1885 | 193,775,477 |
| 1881 | 161,740,361 | 1886 | 203,013,090 |

**Different systems of preparing the clip.**

Various systems of preparing the clip for export obtain in different parts of the Colony, but by far the larger number of sheep, perhaps 75 per cent., are shorn in the grease, the weight of wool obtained being 5 lb. 7½ oz., as above stated; from sheep hot water and spout washed, the average clip is 3 lb. 4 oz.; from creek water-washed sheep, 3 lb. 2 oz.; and from sheep scoured, 3 lb.; lambs average 1 lb. 12 oz. of wool in the grease, and 1 lb. 8 oz. when washed.

**Proportion of home-shipped wool increasing.**

Owing chiefly to the construction of railways into the interior of the Colony, the proportion of wool which is shipped from the ports of the Colony, has largely increased in recent years; a very large amount, however, is still sent to Melbourne and Adelaide for shipment to Europe.

The following table shows the shipments of New South Wales wool from the ports of the three neighbouring colonies, as well as from the ports of this Colony.

No. 182.—Wool, the produce of New South Wales, shipped from Ports of Different Colonies:—

| Year. | N.S. Wales ports. | Victorian ports. | S. Australian ports. | Queensland ports. | Total. |
|---|---|---|---|---|---|
| | lb | lb | lb | lb | lb |
| 1877 | 65,024,631 | 54,196,363 | 2,281,048 | 650,559 | 122,152,601 |
| 1878 | 68,949,633 | 55,496,732 | 16,785,661 | 328,114 | 141,560,140 |
| 1879 | 81,629,754 | 56,604,967 | 10,472,908 | 585,557 | 149,293,186 |
| 1880 | 100,506,949 | 65,892,226 | 11,927,018 | 440,258 | 178,766,451 |
| 1881 | 97,049,455 | 58,568,909 | 5,673,787 | 448,211 | 161,740,362 |
| 1882 | 96,927,768 | 52,259,856 | 21,257,679 | 574,612 | 171,019,915 |
| 1883 | 146,450,042 | 53,374,727 | 16,129,452 | 726,993 | 216,681,214 |
| 1884 | 133,570,339 | 46,239,608 | 21,658,427 | 431,567 | 201,899,941 |
| 1885 | 138,581,706 | 46,206,250 | 8,583,408 | 404,114 | 193,775,478 |
| 1886 | 128,299,245 | 50,229,330 | 24,170,392 | 314,123 | 203,013,090 |

The weights given above are on the assumption that all the wool was shipped in the grease. When washed wool has been shipped, the weight of greasy wool required to give the quantity of washed wool has been estimated and included.

The amount of wool sent by way of Adelaide is especially affected by the state of the Darling River, increasing or diminishing according as the river is navigable or not during the wool season. The proportion of the total clip reaching New South Wales ports compared with what was despatched by way of Melbourne, Adelaide, and Brisbane was :—

Wool shipped *viâ* Adelaide.

No. 183.—Proportion of New South Wales wool shipped from New South Wales and Other Ports.

| Year. | Per-centage shipped from New South Wales ports. | Per-centage shipped from other ports. |
|---|---|---|
| 1877 | 57·79 | 42·21 |
| 1878 | 50·03 | 49·97 |
| 1879 | 56·17 | 43·83 |
| 1880 | 58·55 | 41·45 |
| 1881 | 63·21 | 36·79 |
| 1882 | 59·81 | 40·19 |
| 1883 | 71·53 | 28·47 |
| 1884 | 69·61 | 30·39 |
| 1885 | 74·82 | 25·18 |
| 1886 | 66·10 | 33·90 |

Under any circumstances, a large part of the wool clip of New South Wales must find its way to Adelaide and Melbourne. These ports are not only geographically nearer to the pastoral districts than Sydney, but communication with them is easier and less costly, especially when the Murray and Darling waters are navigable. It is probable, however, that with the extension of the trunk lines of railway some additional portion of the interior traffic will come to Sydney and Newcastle; but the limit within which further extension may be possible will probably very soon be reached.

Wool will continue to be shipped from Adelaide and Melbourne.

## *VALUE OF THE WOOL CLIP.*

Wool the most important export.

The wool clip of Australasia is its most important item of production, and it may be said that the prosperity of the colonies is greatly affected by, and in a large measure depends upon, the value of this article and the state of the wool market. A small difference of 1d., and even a fraction of 1d. per lb., when applied to the immense weight of the clips from over 86 millions of Australasian sheep, represents in the aggregate a very large sum of money.

A glance at the wool trade of New South Wales since the year 1860, when the Colony was for the last time subdivided and lost its northern province of Queensland, will afford interesting matter for examination.

Weight exported.

The following table summarizes the state of the export trade of New South Wales in wool during the period 1860–1886, and illustrates the growth of that important industry during the last quarter of a century; whilst, at the same time, the fluctuations in the value of the clip may be easily followed.

No. 184.—Wool Exported, 1860–86:—

| Year. | Quantity. | Value. | Year. | Quantity. | Value. |
|---|---|---|---|---|---|
| | lb. | £ | | lb. | £ |
| 1860 | 12,809,362 | 1,123,699 | 1874 | 75,156,924 | 5,010,125 |
| 1861 | 12,745,891 | 1,396,426 | 1875 | 87,534,280 | 5,651,643 |
| 1862 | 13,482,139 | 1,283,818 | 1876 | 100,736,330 | 5,565,173 |
| 1863 | 14,791,849 | 1,262,274 | 1877 | 102,150,246 | 5,256,038 |
| 1864 | 25,827,917 | 2,294,615 | 1878 | 111,833,017 | 5,723,316 |
| 1865 | 29,858,791 | 2,283,560 | 1879 | 123,710,450 | 6,491,198 |
| 1866 | 36,980,685 | 2,830,348 | 1880 | 154,871,832 | 8,040,625 |
| 1867 | 21,708,902 | 1,711,322 | 1881 | 139,601,506 | 7,149,787 |
| 1868 | 25,721,632 | 1,879,751 | 1882 | 146,221,182 | 7,433,091 |
| 1869 | 51,269,672 | 3,162,522 | 1883 | 188,161,710 | 9,598,761 |
| 1870 | 47,440,610 | 2,741,141 | 1884 | 173,986,303 | 8,953,100 |
| 1871 | 65,611,953 | 4,748,160 | 1885 | 168,151,659 | 7,246,642 |
| 1872 | 50,233,453 | 3,342,900 | 1886 | 173,985,640 | 7,028,596 |
| 1873 | 31,606,846 | 2,201,910 | | | |

Effect of price of wool on national prosperity.

A careful examination of the preceding figures at once reveals the correctness of the fact just mentioned, that the fluctuations in the value of our staple article of export visibly affect the national prosperity. The exports for the years 1884 and 1886, for instance, which may be taken as practically equal in quantity, represented a value of £8,953,100 in the former year, whilst in the latter year their value was reduced to £7,028,596. In this particular case the figures exhibit a double loss—in the quantity, and in the value of the produce exported. In 1884, the former was equivalent to 197·5 lb. per head of the mean population, and the estimated value was set down at 9½d. per lb. for greasy wool. Had the quantity of wool exported in 1886 been in proportion to our increased population, the figures would have stood at 193,558,395 lb., instead of the 173,985,640 lb. actually exported. Thus the loss suffered in quantity amounts to 19,572,755 lb. The actual difference in value of the two clips against 1886 amounts to £1,924,504; but if to this sum be added the value of the quantity which the Colony failed to export in that year, it will be found that the proceeds of the export of wool in 1886 were actually shorter by £2,931,716 than would have been realised had the prices and yield of 1884 been maintained.

Fluctuation in value.

The preceding table also shows that although during the period under examination, the value of wool has greatly fluctuated from one year to another, the tendency to a constant diminution of price is unfortunately too clearly discernible.

In order to further illustrate the fluctuations in the value of this staple in the London market during the last ten years, the classification into scoured and greasy wool has been adhered to, and the following table will give an accurate idea of the average value realized for these two classes of wool during the last period of ten years. The values given were those ruling at the five principal sales of each year.

No. 185.—Average Value per pound of Sydney Shipped Wool in the London Market at the five Principal Sales in each year, for the period 1877-86 :—

| Sales. | 1877. | | 1878. | | 1879. | | 1880. | | 1881. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Scoured. | Greasy. | Scoured. | Greasy. | Scoured. | Greasy. | Scoured. | Greasy. | Scoured. | Greasy. |
| | d. | d. | d. | d. | d. | d. | d. | d. | d. | d. |
| 1st Series ...... | 18½ | 10 | 17 | 9½ | 16½ | 9½ | 19 | 12½ | 18 | 11 |
| 2nd ,, ...... | 17½ | 9½ | 16½ | 9 | 17 | 10 | 19 | 14 | 18½ | 11½ |
| 3rd ,, ...... | 18 | 10½ | 18 | 10½ | 16 | 9 | 19 | 12 | 18½ | 11½ |
| 4th ,, ...... | 18 | 10 | 17 | 10 | 17½ | 10½ | 19½ | 12 | 18 | 11 |
| 5th ,, ...... | 17½ | 10 | 16 | 9 | ... | ... | 19½ | 12 | 18½ | 11 |

| Sales. | 1882. | | 1883. | | 1884. | | 1885. | | 1886. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Scoured. | Greasy. | Scoured. | Greasy. | Scoured. | Greasy. | Scoured | Greasy. | Scoured. | Greasy. |
| | d. | d. | d. | d. | d. | d. | d. | d. | d. | d. |
| 1st Series ...... | 18½ | 11 | 18 | 10 | 16½ | 9½ | 16 | 9 | 13 | 7½ |
| 2nd ,, ...... | 19 | 11 | 18 | 10 | 16½ | 9½ | 15½ | 8½ | 12 | 6½ |
| 3rd ,, ...... | 19 | 10½ | 17 | 9½ | 16½ | 9½ | 14½ | 7½ | 14½ | 8½ |
| 4th ,, ...... | 18½ | 10½ | 17½ | 9½ | 17 | 10 | 13½ | 8 | 16½ | 10 |
| 5th ,, ...... | 18½ | 10½ | 17½ | 10 | 16½ | 9½ | 13½ | 8 | 14 | 8½ |

During the period covered by the foregoing table scoured Sydney-shipped wool fluctuated between a maximum of 19½d. per lb., and a minimum of 12d. ; and greasy wool realized from 6½d. to 14d.

Maximum price obtained in 1880.

The maximum prices for both descriptions of wool were realized during the year 1880, when the sales opened at 19d. and 12½d. per lb. respectively. Prices were fairly well maintained in 1881 and 1882, but they began to decline rapidly until the lowest market was reached in the early part of 1886, when scoured wool realized as little as 12d., and greasy 6½d. per lb. A slight improvement was noticed at the July sales of 1886, at which better prices ruled, and the increase was further stimulated by a brisker demand at the following sales in September; but the closing series in December again exhibited a tendency to a decrease of prices. How long this tendency will continue to be felt it would be impossible to say, but it will be safe to predict that a return to the extremely prosperous years of 1871 to 1875, when scoured Sydney-shipped wool obtained as much as 26½d., and greasy wool 15d. per lb., is very doubtful. Unless fresh avenues are open to the wool industry in those countries where its use is comparatively unknown, the production of wool bids fair to overtake the consumption, and in such a contingency it would be hopeless to expect a rise in the value of the article.

**China and Japan as a market for wool.**

The establishment of a market for Australian wool among the teeming populations of China and Japan, where the nature of the climate itself points out the value of wool as an article of clothing, is an object towards which the intelligent glance of the statesmen of Australia might be well directed.

**Large export of N. S. W. wool as Victorian.**

The quantity and value of wool, the produce of each of the various colonies of Australasia, exported therefrom during the year 1886, will be found below. The total exports of this produce from the ports of Victoria and South Australia were 107,984,839 ℔. and 58,493,555 ℔. respectively. These figures represent, besides the production of those colonies, a very large quantity of wool imported from the other colonies and exported to the home markets as Victorian and South Australian wool. The amount of the export of the produce of Victoria alone will be found to be only 54,081,196 ℔., or 50·08 per cent. of the total credited to its ports and exported nominally as Port Phillip wool.

No. 186.—Quantity and Value of Wool exported from the Australian Colonies, the Produce of each separate Province, in 1886 :—

| Colony. | Quantity. | Value. |
|---|---|---|
| | ℔. | £ |
| New South Wales | 173,985,640 | 7,028,596 |
| Victoria | 54,081,196 | 2,729,470 |
| Queensland | 28,700,546 | 1,413,908 |
| South Australia | 44,792,613 | 1,447,971 |
| Western Australia | 6,139,917 | 230,247 |
| Tasmania | 8,175,780 | 310,934 |
| New Zealand | 90,853,744 | 3,072,971 |

Value of clip of each colony.

The estimated value of the wool exported from each colony may appear anomalous, when the weight of the clip only is considered. It must be borne in mind, however, in comparing the weight and value of this export, that in some colonies the proportion of washed and scoured wool is greater than in others, whilst there is also a wide margin of difference in the average value per pound of the wool grown in one colony and that grown in another.

## *CATTLE.*

Though still a most important industry, cattle-rearing does not now occupy so prominent a place as formerly. In 1861, the value of the horned cattle depastured in the Colony was about £7,000,000, while that of the sheep was not more than half this sum. In 1886, the relative positions of the two classes of stock had entirely changed; for, while the cattle were valued at £6,155,298, the sheep were worth £13,709,257, although in the interval cattle had considerably risen in value, and sheep had depreciated.

Yearly return of cattle.

The number of cattle returned during each year since 1861 is shown in the subjoined table, and it will be noticed how regular has been the decline in the totals since 1875.

No. 187.—Horned Cattle in New South Wales :—

| Year. | Number of cattle. | Year. | Number of cattle. |
|---|---|---|---|
| 1861 | 2,271,923 | 1874 | 2,856,699 |
| 1862 | 2,620,383 | 1875 | 3,134,086 |
| 1863 | 2,032,522 | 1876 | 3,131,013 |
| 1864 | 1,924,119 | 1877 | 2,746,485 |
| 1865 | 1,961,905 | 1878 | 2,771,583 |
| 1866 | 1,771,809 | 1879 | 2,914,210 |
| 1867 | 1,728,427 | 1880 | 2,580,040 |
| 1868 | 1,761,411 | 1881 | 2,597,348 |
| 1869 | 1,795,904 | 1882 | 1,859,985 |
| 1870 | 2,195,096 | 1883 | 1,640,753 |
| 1871 | 2,014,888 | 1884 | 1,425,130 |
| 1872 | 2,287,660 | 1885 | 1,317,315 |
| 1873 | 2,794,327 | 1886 | 1,367,844 |

If the above figures be compared with those of sheep during the same period, it will be found that the change which has taken place in the class of stock has been most remarkable. It is very debatable whether the substitution of sheep for cattle will in the end prove advantageous to the State, though there does not appear to be any doubt that sheep-breeding is at present more profitable to the individual owner.

Principal breeds of cattle in Colony.

The principal breeds of cattle now in the Colony are shorthorns, Devons, black-polled, Ayrshire, Alderneys, and crosses from these various breeds. At the close of the year 1886, the numbers of each breed, as far as could be ascertained, were :—

| | | |
|---|---|---|
| Shorthorns—Pure and stud | 34,819 | |
| Ordinary | 526,099 | |
| | | 560,918 |
| Hereford—Pure and stud | 15,430 | |
| Ordinary | 151,801 | |
| | | 167,231 |
| Devon—Pure and stud | 5,699 | |
| Ordinary | 43,138 | |
| | | 48,837 |
| Black-polled—Pure and stud | 368 | |
| Ordinary | 719 | |
| | | 1,087 |
| Ayrshire—Pure and stud | 942 | |
| Ordinary | 2,595 | |
| | | 3,537 |
| Alderneys—Pure and stud | 298 | |
| Ordinary | 175 | |
| | | 473 |
| Crosses—Pure and stud | 3,485 | |
| Ordinary | 582,276 | |
| | | 585,761 |

The cross-breeds were estimated as follows :—

| | |
|---|---|
| Shorthorn and Hereford | 220,463 |
| Shorthorn and Devon | 75,618 |
| Hereford and Devon | 34,533 |
| Shorthorn and black-polled | 2,560 |
| Ayrshire and shorthorn | 4,000 |
| Unrecognizable | 248,587 |
| | 585,761 |

"Cast" of cattle in 1886.

The number of cattle available for sale during the year 1886 is estimated to have amounted to 193,064 head of fat cattle, and 144,542 head of stores. These numbers are certainly very high, if the produce of the herds of the Colony be alone considered. The cattle trade with Queensland, is, however, very considerable, especially in store cattle sent to this Colony for fattening, these serve to swell the nominal cast of the herds of the Colony to the figures given above. If the produce of the Colony alone be reckoned, the cast for the year 1886 was 197,592 fat and store cattle, and the cast for 1887 will probably be 205,175 head.

Food supply of the colonies.

The magnitude of the pastoral interests of Australia, and the existence of a large surplus of stock have served to divert attention from the question of the permanence of the surplus. The matter is not one of merely abstract importance, but has a practical bearing on the question of the food supply of these colonies, as well as of the possibility of the continued export of meat to the markets of the Old World. In dealing with this question it will be necessary to consider not only New South Wales, but the whole of Australia. The advisability of so treating the stock of the colonies must be apparent, when it is borne in mind that the constant crossing and recrossing of flocks and herds from one colony to another for breeding, fattening, or other purposes, entirely destroy the value of any set of figures relating to one colony, as distinct from the whole group. This is especially the case in considering the important question of the cast, or percentage of stock available for market during each year. In a purely fattening country the cast will appear very high, and on breeding stations correspondingly low. A combination of all classes of runs will alone give true results, and this can only be got by considering the whole of continental Australia as if it were one run.

The people of Australia, in ordinary years, consume by far the larger part of the meat produced in the country, and even in the most abundant seasons, the surplus exported forms but a small portion of the total quantity produced. The ratio at which population tends to increase is therefore an important element in this question. The population of the colonies increased at the rate of 3·14 per cent. for the ten years 1871-81, but the increase was much more rapid towards the close of this period than in the earlier years, and the annual increase may now be taken as 4 per cent.

Annual increase of cattle.

It has already been pointed out that the rate of increase of stock has been very erratic. For some periods indeed there has been an absolute decline both in sheep and in cattle; yet, through a series of years, the ratio of increase may be discerned. Thus, the increase of cattle may be set down as one per cent. per annum, and though the experience of some districts, or even colonies, may seem to warrant the adoption of a larger ratio, the experience of all colonies fixes the per-centage given.

Annual increase of sheep.

The increase in sheep is much larger than cattle. There is not only a less demand for mutton than for beef, but sheep have been less affected by drought and disease than cattle, and the increase in their numbers has consequently been much greater. For all Australia the ratio of increase may be taken as 4·22 per cent.

Combining the two classes, sheep and cattle, under the common designation of stock, the ratio of increase is 2·33 per cent. It is necessary to treat both classes of stock together, as the deficiency in the supply of mutton is made good by beef, and the reverse is also true; for, though the consumption of meat may remain the same in quantity, it differs in kind, in the different colonies and in different years. Beef is the predominating meat diet in some parts, mutton in others, and almost an equal proportion of both in other places, as in Sydney.

Annual cast of stock.

The cast, or quantity of stock annually available for market, can only be determined by the experience of experts. The most diverse opinions prevail in regard to this matter, especially amongst those whose experience is confined to one class of country. The best authorities agree very closely, however, in fixing the annual cast of cattle at 11·7, and that of sheep at 12·34 per cent.

Consumption of meat.

The consumption of meat in these colonies is very large. In New South Wales the annual consumption is 140 lb. of beef, and 120 lb. of mutton per head, or a total of 260 lb., including all waste. This amount is probably also the average of the whole of the colonies.

The total consumption of meat on the basis of the population at the close of 1886 would be 663,700,000 lb., and the amount available or the cast of 68,135,629 sheep and 7,220,652 cattle would be 994,500,000 lb. The surplus therefore would during 1887, be 330,800,000 lb. It would therefore appear that the surplus meat available for export amounts to 33·27 per cent. of the total produce of Australia, and at the rate of consumption which now obtains, the present cast of stock would supply food for 1,344,000 persons more than were in Australia at the close of the year 1886.

As the population tends to increase at a faster rate than the food supply, the annual increase of population being 4 per cent., while that of food is only 2·23 per cent., the demand of population, no matter how large the present surplus may be, will inevitably overtake the supply. How long it will be before this contingency arises it would be unsafe to predict.

Decrease in consumption may be expected.

The present consumption of meat is very great, and may reasonably be expected to decrease, and approach nearer the average of older countries. The loss of stock, which has hitherto been unreasonably large, may also be greatly reduced in future years. So, from a decreased demand and a diminished loss, the day when the meat supply will be no greater than the demand may be postponed for some years. Arguing, therefore, on the basis of the facts gleaned from past experience, the time when the demand of Australia for beef and mutton will overtake the local supply is not a matter which practically concerns the present generation.

Surplus of meat in New South Wales.

New South Wales, is perhaps more favourably situated than the other continental colonies, in respect to meat supply derived from its own territory. It has, relatively, more stock than any other colony, and the yearly cast is larger than the average of all Australia. Against this, its population increases much more rapidly, and although the meat supply increases at the rate of 3·5 per cent. in each year, and shows a present surplus of 100,000,000 lb., or nearly one-third of the entire surplus of Australia, its population increases at the rate of 5 per cent. thus, counterbalancing the gain from a larger cast and more extensive flocks. The total consumption of meat in the colony, at the end of 1886, amounted to 250,000,000 lb., while the total cast or return from cattle and sheep amounted to nearly 350,000,000 lb. The former, increasing at 5 per cent., will overtake the latter, at 3·5 per cent. per annum, in 23·4 years.

## *HORSES.*

Horse-breeding.

New South Wales is eminently fitted for the breeding of most descriptions of horses, but the industry is at present in a languishing condition, owing to the limited export market which exists. The number of horses in the Colony shows little increase for fifteen years, as may be seen from the following table :—

No. 188.—Horses in New South Wales.

| Year. | Number of horses. | Year. | Number of horses. |
|---|---|---|---|
| 1872 | 328,408 | 1880 | 395,984 |
| 1873 | 334,462 | 1881 | 398,577 |
| 1874 | 346,691 | 1882 | 328,026 |
| 1875 | 357,696 | 1883 | 326,964 |
| 1876 | 366,703 | 1884 | 337,172 |
| 1877 | 328,150 | 1885 | 344,097 |
| 1878 | 336,468 | 1886 | 361,663 |
| 1879 | 360,038 | | |

The annual increase in the number of horses has been hardly more than 1 per cent. during the whole period covered by the above table, while the increase of population has been at the rate of nearly 5 per cent.

Classification of horses.

For purposes of classification the horses of the Colony have been divided into draught, light-harness, and saddle-horses, the numbers of each particular kind being as follows :—

| Class. | Thorough bred. | Ordinary. | Total. |
|---|---|---|---|
| Draught ............ | 15,473 | 90,509 | 105,982 |
| Light-harness...... | 12,294 | 87,820 | 100,114 |
| Saddle ........... | 20,028 | 135,439 | 155,567 |
| Total ... | 47,895 | 313,768 | 361,663 |

Saddle and harness horses.

The Colony is specially adapted for the breeding of saddle and light-harness horses, and it is doubtful whether these particular breeds of Australian horses are anywhere surpassed. The ordinary bush horse is hardy and swift, and capable of making very long and rapid journeys, when fed only on the ordinary herbage of the country ; and in times of drought, when the grass and water have become scanty, these animals often perform astonishing feats of endurance.

The approximate number of animals annually fit for market is :—

| | |
|---|---|
| Draught-horses.................................. | 17,000 |
| Saddle „ .................................. | 28,000 |
| Light-harness .................................. | 17,000 |
| Total .................. | 62,000 |

India and China markets.

Of these it is estimated that nearly 7,000 are suitable for the Indian and China markets. The total number shipped during 1886 to all places, other than Victoria, was 1,828, the Indian market taking only 349. The proximity of these colonies to India and China gives them a considerable advantage over other countries in this particular trade, though little has been done to develop it. Owing, therefore, to the limited demand, it has not been found advantageous to breed horses for any but local requirements, and the attention of pastoralists is almost exclusively devoted to sheep and cattle-breeding, the returns from which are more regular and profitable than from horses.

**Foreign demand for horses limited.**

## *PIGS.*

**Pig-breeding neglected.**

The breeding of pigs has also been very much neglected in New South Wales, so that in 1886 the number of stock was less than in 1870. Considering the importance which the industry has attained in other countries, it is a matter of surprise that more attention has not been paid to it in this Colony, where the conditions of farming in many parts, more especially in the coast districts, offer great facilities for the raising of this class of stock. The estimated value of pigs in the Colony at the close of 1886 was £523,940, and the estimated return for the year therefrom was about £251,491.

**Value of Annual Cast.**

The following table shows the number of stock in each year since 1860.

No. 189.—Pigs in New South Wales :—

| Year. | Number of pigs. | Year. | Number of pigs. |
|---|---|---|---|
| 1861 | 146,091 | 1874 | 210,958 |
| 1862 | 125,541 | 1875 | 199,950 |
| 1863 | 135,899 | 1876 | 173,604 |
| 1864 | 164,154 | 1877 | 191,677 |
| 1865 | 146,901 | 1878 | 220,320 |
| 1866 | 137,915 | 1879 | 256,026 |
| 1867 | 173,168 | 1880 | 308,205 |
| 1868 | 176,901 | 1881 | 213,916 |
| 1869 | 175,924 | 1882 | 154,815 |
| 1870 | 243,066 | 1883 | 189,050 |
| 1871 | 213,193 | 1884 | 211,656 |
| 1872 | 218,904 | 1885 | 208,697 |
| 1873 | 240,680 | 1886 | 209,576 |

## PASTORAL PROPERTY.

Value of pastoral property.

Pastoral property and stock form the largest factor in the wealth, not only of New South Wales, but also of all the other principal colonies of Australasia, and the return derived therefrom is the largest source of the income of its inhabitants. The total capital value of pastoral property, including land, improvements, and plant, as well as stock, is estimated at £300,000,000, and of this large sum £130,000,000, or 43⅓ per cent., belongs to New South Wales.

Total Live Stock in Australasia.

The number of stock of all kinds in each colony at the close of the year 1886, cannot be exactly determined, as no estimate was made in South Australia and New Zealand, but the approximate numbers were as follows:—

No. 190.—Live Stock in the Australasian Colonies, 1886.

| Colony. | Sheep. | Cattle. | Horses. | Pigs. |
|---|---|---|---|---|
| New South Wales ......... | 39,169,304 | 1,367,844 | 361,663 | 209,576 |
| Victoria .......... ........ | 10,700,403 | 1,303,265 | 308,553 | 240,957 |
| Queensland .................. | 9,690,445 | 4,071,563 | 278,694 | 61,861 |
| South Australia ........... | 6,696,406 | 389,726 | 168,420 | 163,807 |
| Western Australia ......... | 1,809,071 | 88,254 | 38,360 | 24,655 |
| Tasmania ...................... | 1,608,946 | 148,665 | 29,684 | 73.118 |
| New Zealand ............... | 16,677,445 | 895,461 | 187,382 | 369,992 |

New South Wales, therefore, ranks first as regards the number of sheep—39,169,304 out of a total of 86,352,020, or 45·36 per cent. being depastured within its limits. In regard to cattle, this Colony stands next to Queensland, having 1,367,844 head of cattle out of a total of 8,264,778, or 16·55 per cent. of the whole of the cattle of Australia. As a horse-breeding country New South Wales stands first, with 361,663, or 26·35 per cent. of total horses of the colonies, Victoria coming second with 308,553 head. New Zealand has the largest number of pigs found in any colony—her total being 369,992 or 32·34 per cent. New South Wales ranks third, with with 209,576, or 18·32 per cent.

# PART XIII.

## Internal Communication.

FOR many years, settlement was restricted to the narrow belt of land shut in between the Blue Mountains and the sea. Several main roads were formed through this country within a few years of the first settlement of the Colony. These roads connected the infant towns of Parramatta, Liverpool, Windsor, and Penrith with the metropolis, and were constructed entirely by prison labour. The abrupt wall of sandstone rising on the further side of the Nepean barred all access to the interior of the country. As early as the year 1796, George Bass made an attempt to cross the mountain range, and returned after an unsuccessful journey, reporting that it was impossible to find a passage even for a person on foot. In 1813, a protracted season of drought, attended with considerable losses amongst the stock of the Colony, brought home very clearly to the settlers the conviction that the future of the Colony entirely depended upon the discovery of an extension of grazing land beyond the narrow limits within which they were now hemmed. In the month of May of the year named, Mr W. C. Wentworth, Mr Gregory Blaxland, and Lieutenant Lawson once more attempted to find a passage across the mountains. After meeting with difficulties which seem astonishing enough to the present generation, who have seen a railway carried over the same track, and may reach Bathurst in a few hours, these gentlemen succeeded in opening a way—sometimes by creeping through dense forests, at others by scaling tremendous precipices—to the vast plains lying west of the great Cordillera of Australia. They returned on the 6th June, and shortly afterwards Governor Macquarie sent a party of surveyors, under Mr. Evans, to report

Bass' attempt to cross the mountain range.

Wentworth, Blaxland, and Lawson discover a passage.

Construction of the Great Western Road.

on the practicability of constructing a road, and the report being favourable, the construction of the great western highway was at once commenced, the work being performed by gangs of prisoners. The track thus made formed a continuation of the Great Western Road, from Penrith, and it was completed as far as Bathurst by the 21st January, 1815.

The discovery of the Bathurst Plains, and the completion of the mountain road, gave so great an impetus to settlement that it was found impossible to keep pace in the matter of roads with the demands of the settlers. The Government, therefore, contented itself with maintaining the roads already constructed, and extending them in the direction of the principal centres of settlement. Roads from 1 to 3 chains in width were, however, reserved between the various stations and secondary townships and villages, either for present or future requirements.

Principal main roads.

The principal main roads of the Colony are :—

Northern Road—length 405 miles, from Morpeth to Maryland, New England.

Western Road—length 338 miles, from Sydney to Warren through Bathurst, Orange and many other important townships ; thence prolonged to the Darling, at Bourke by a line 175 miles in length.

Southern Road—length, 385 miles, from Sydney to Albury. This road was, before the construction of the railway, the great highway between Sydney and Melbourne.

South-coast Road—length, 250 miles. This road, after leaving Campbelltown ascends the coast range, along the top of which it runs as far as Coal Cliff. It then traverses the Illawarra district, parallel to the coast, and passes through the rich lands watered by the Shoalhaven, Clyde, and Moruya, as far as Eden, at the southern limit of the Colony.

None of these roads have now the importance they formerly possessed. The railways of the Colony, for the most part, follow the direction of the main roads, and attract to themselves nearly all the through traffic, so that the roads now have merely a local importance.

Importance of main roads less than formerly.

Besides the original main highways, other roads traverse the country, establishing a complete network of communication. In 1886, it is estimated that the total length of main roads in the Colony was not less than 4,080 miles, besides which there were 19,121 miles of subordinate roads, making a total of 23,201 miles. The expenditure by the Government upon the different roads varies considerably according to their importance. All roads maintained by the Government fall under six classes. On first class roads the Government expends yearly an amount equal to £50 per mile; on second class roads, £25 per mile; third class, £15 per mile; fourth class, £10 per mile; fifth class, £7; and on sixth class roads, £5 per mile.

Total length of roads.

The roads of the Colony cover so large an extent of ground as to make it quite impossible that they should be constructed on the system which prevails in Great Britain. The Government, therefore, contents itself with maintaining in good order the few main roads already alluded to. The expenditure on minor roads is chiefly upon culverts and bridges with their approaches, and on roads across marshy ground. Nothing less resembles an English highway than an ordinary Australian road. Fences, for the most part, do not exist, and the only indications visible of the existence of a road are frequently the deep cut tracks of cart-wheels on the surface of the ground.

English and Australian roads.

The total expenditure on account of roads of all classes was, during 1886, £688,973; this sum, however, includes expenditure on punt approaches, and similar works incidental to the road traffic of the country.

Expenditure on roads.

No. 191.—Expenditure for Construction and Maintenance of Roads and Bridges:—

| Year. | Expenditure. | Year. | Expenditure. |
|---|---|---|---|
| | £ | | £ |
| 1877 | 427,141 | 1882 | 576,817 |
| 1878 | 526,815 | 1883 | 637,242 |
| 1879 | 585,268 | 1884 | 755,539 |
| 1880 | 601,480 | 1885 | 775,403 |
| 1881 | 473,109 | 1886 | 688,973 |

Municipal roads and streets.

Besides the roads maintained by the Government there existed at the close of 1886, 4,403 miles of roads and streets belonging to and maintained by the municipalities of the Colony. Of these roads, 2,146 miles were regularly formed and metalled, while 2,257 miles were not formed. The value of these roads is estimated at £2,150,000, but this estimate must be looked upon as an approximation only, as the information obtained from the various municipalities is far from complete.

## *RAILWAYS.*

The first attempt to introduce into New South Wales the blessings of railway communication, which has so revolutionized the commerce of the older parts of the world, was made in 1846. On the 26th August of that year, a meeting took place in Sydney at which it was decided to survey a line to connect the metropolis with the city of Goulburn. Two years afterwards, on 11th September, 1848, the Sydney Tramroad and Railway Company was formed, with a capital of £100,000, having for its object the construction of railways to Parramatta and Liverpool, with a possible extension, in course of time, to Bathurst and Goulburn.

The Sydney Tramroad and Railway Company.

No time was lost in breaking ground, and on the 3rd July, 1850, the Hon. Mrs. Keith Stewart, daughter of the Governor, Sir Charles Fitzroy, turned the first sod of the first railway constructed in the Australian Colonies.

The affairs of the Sydney Tramroad and Railway Company did not, however, prosper as the promoters had expected, and it was found necessary to transfer the property of the company to the Government of the Colony. Meanwhile another company had been started in 1853, with the object of constructing a railway from the city of Newcastle to Maitland. It met with no more success than the Sydney company and shared the same fate. On the Government taking possession of the property of the defunct companies, the works were carried on with renewed vigour, and on the 26th of September, 1855, the line from Sydney to Parramatta was declared open to public traffic, and the extension to Goulburn was opened on the 27th May, 1869.

**The first line from Sydney to Parramatta.**

**Progress of railway construction.**

The progress of railway construction during the twenty years which followed the opening of the first line was very slow, for in 1875 the length of the lines in operation had only reached 437 miles, or at the rate of 45·9 miles per year. During 1865 and 1866, not a single mile of railway was opened, but in 1867 the construction of these great commercial highways received a new impetus, and continued to increase yearly until the year 1872, when it stood still for another period of three years (1872–1875), during which only five miles of railway were thrown open to traffic. In the last ten years of the period of thirty-one years that have elapsed since the first line was opened, the rate of increase in the construction of lines had greatly improved, and from the end of 1876 to that of 1886, 1,380 miles of railway were opened for traffic, or a yearly average of 138 miles. The following table shows the number of miles of line opened in each year as well as the total length in operation.

## No. 192.—Length of Railway Line opened for Traffic during Each Year :—

| Year. | Opened per annum. | Total opened. | Year. | Opened per annum. | Total opened. |
|---|---|---|---|---|---|
| 1855 | 14 | 14 | 1871 | 19 | 358 |
| 1856 | 9 | 23 | 1872 | 40 | 398 |
| 1857 | 17 | 40 | 1873 | 5 | 403 |
| 1858 | 15 | 55 | 1874 | nil. | 403 |
| 1859 | nil. | 55 | 1875 | 34 | 437 |
| 1860 | 15 | 70 | 1876 | 72 | 509 |
| 1861 | 3 | 73 | 1877 | 89 | 598 |
| 1862 | 24 | 97 | 1878 | 90½ | 688½ |
| 1863 | 27 | 124 | 1879 | 46 | 734½ |
| 1864 | 19 | 143 | 1880 | 115 | 849½ |
| 1865 | nil. | 143 | 1881 | 146 | 995½ |
| 1866 | nil. | 143 | 1882 | 273 | 1,268½ |
| 1867 | 61 | 204 | 1883 | 52 | 1,320½ |
| 1868 | 43 | 247 | 1884 | 298 | 1,618½ |
| 1869 | 71 | 318 | 1885 | 114 | 1,732½ |
| 1870 | 21 | 339 | 1886 | 157 | 1,889½ |

Private line.

A private line of railway 45 miles in length has been in operations for some years connecting the important towns of Moama and Deniliquin, and virtually forms an extension of the Victorian railway system from Melbourne to Echuca. Some facts relating to the traffic of this line will be given in another place. The following figures relate only to lines under Government control.

Capital expended.

The capital expended on all lines at the close of 1886 amounted to £27,353,579. Of this sum £24,079,555 was for lines opened for traffic. The amounts expended on lines opened during each year from the commencement of the railway system will be found below.

No. 193.—Total Capital expended at the end of each year on Lines open to Traffic from 1855 to the close of 1886:—

| Year | Capital expended on lines open. | Year. | Capital expended on lines open. |
|---|---|---|---|
| | £ | | £ |
| 1855 | 515,347 | 1871 | 5,887,258 |
| 1856 | 683,217 | 1872 | 6,388,727 |
| 1857 | 1,023,838 | 1873 | 6,739,918 |
| 1858 | 1,231,867 | 1874 | 6,844,546 |
| 1859 | 1,278,416 | 1875 | 7,245,379 |
| 1860 | 1,422,672 | 1876 | 7,990,601 |
| 1861 | 1,536,032 | 1877 | 8,883,177 |
| 1862 | 1,907,807 | 1878 | 9,784,645 |
| 1863 | 2,466,950 | 1879 | 10,406,495 |
| 1864 | 2,631,790 | 1880 | 11,778,819 |
| 1865 | 2,746,373 | 1881 | 13,301,597 |
| 1866 | 2,786,094 | 1882 | 15,843,616 |
| 1867 | 3,282,320 | 1883 | 16,905,014 |
| 1868 | 4,060,950 | 1884 | 20,080,138 |
| 1869 | 4,681,329 | 1885 | 21,831,276 |
| 1870 | 5,566,092 | 1886 | 24,079,555 |

The Colony of New South Wales stands at the head of the Australasian Colonies in regard to railway development, as will be seen from the following table.

New South Wales has greatest length of line.

No. 194.—Length of Line open for Traffic in Australasian Colonies during 1886:—

| | Miles. |
|---|---|
| New South Wales | 1,935 |
| Victoria | 1,753 |
| New Zealand | 1,555 |
| Queensland | 1,382 |
| South Australia | 154 |
| Tasmania | 303 |
| Western Australia | 1,809 |
| Total | 8,891 |

In the case of two of the colonies, New South Wales and New Zealand, the above figures include the length of private lines in operation.

Railway systems of Colony—Southern lines.

The railway system of the Colony is divided into three distinct branches, each representing a system of its own. The Southern system, including the principal line in the Colony, branches at Junee, and places the important district of Riverina, as far as the town of Hay in one direction, and that of Jerilderie in another, in direct communication with Sydney—from which these places are respectively distant 454 and 428 miles. From several other points of the line branches have been opened for traffic, or are in course of construction connecting other important districts with the metropolis. At Cootamundra, a line, which it is intended to continue as far as Tumut, now reaches Gundagai, whilst from Murrumburrah a line is in course of construction to connect, at Blayney on the western line, the southern and western systems of New South Wales Railways. A portion of this line, as far as the township of Young, was open for traffic in March, 1885. Nearer Sydney the important town of Goulburn will be the centre of a system of branch lines, one of which, that from Goulburn to Cooma, is already partly built, and will bring the rich pastoral districts of Monaro and Braidwood—the latter by a sub-branch—in direct communication with Sydney. It is also intended to connect Goulburn with the township of Crookwell, the centre of a large agricultural district 20 miles distant. Further south the construction of a branch line from Wagga Wagga to Tumberumba has been authorized, and also a branch from Culcairn to Corowa on the Murray.

Sydney, Melbourne, and Adelaide connected by rail.

The southern main line is the most important of the railway lines in the Colony, as it passes through the richest and most thickly populated districts, and places three of the great capitals of Australia—Sydney, Melbourne, and Adelaide—in uninterrupted communication with each other. It is only since 1883 that this line has been actually open for traffic by the completion of the railway bridge across the Murray from Albury to Wodonga. The traffic, both of passengers and goods, on the southern system generally, far exceeds that of any other line in the Colony; whilst arrangements for the speedy and regular carriage of mails between the two great cities enable letters to be delivered in less than twenty-four hours. The time occupied by the express trains on the journey is only eighteen hours, and the ordinary passenger trains running daily cover the distance between Sydney and Melbourne in twenty-four hours and a half. Sleeping cars are attached to these trains, and the Railway Department constantly endeavour to increase the comfort of travellers by introducing the most modern improvements in the construction and fitting up of the railway carriages. Since the completion of the railway from Melbourne to Adelaide mails are landed at the latter port and forwarded overland to all parts of Victoria and New South Wales. Rapid transit of mails.

The western system of railways extends from Sydney in the direction of the Blue Mountains, of which it reaches the upper levels, a little above Emu Plains, by a system of zig-zag lines which enables the locomotive to drag its heavy freight up the abrupt eastern slope of the mountains. The line runs along the top of the range, until it descends into the valley below Mount Clarence, by another and more important zig-zag, the construction of which is a triumph of engineering skill. In its course between these two zig-zags the line passes through magnificent mountain scenery of a character peculiar to this part of the world, and none the less remarkable. Leaving the mountains the Western Railway, after throwing out a branch from Wallerawang to Mudgee, enters the Bathurst plains, and connects the rich agricultural lands of the Bathurst, Orange, and Wellington districts with the metropolis. Beyond Dubbo it enters the pastoral country and reaches the Darling at Bourke, 503 miles from Sydney. At Orange a branch line, a few miles in length, connects that town with Molong, and it is proposed to make Orange the junction of a line extending through the western pastoral districts, as far as the town of Wilcannia, on the Darling. Further up, at Nyngan, 377 miles from Sydney, a line is projected to connect the important mining district of Cobar with Sydney, affording at the same time rapid Western system Projected branch lines.

and sure means of communication with the great pastoral country, of which Cobar is also the centre. The western railway system also includes a short line from Blacktown to the Hawkesbury, *viâ* the towns of Windsor and Richmond.

Northern system.

The northern system has at present its terminus at Newcastle, but a connecting line between Homebush and Waratah is being constructed, which will make Sydney the head of the whole of the railway systems of the Colony. This line is almost completed, one section from Strathfield to Peat's Ferry on the Hawkesbury River and another from Gosford to Waratah being at present in operation. The completion of this line is, however, dependent upon the construction of a great bridge over the Hawkesbury. This bridge, the contract cost of which is £327,000, has been entrusted to an American firm. It will be the longest bridge in the Australian Colonies, and when finished direct communication by rail between Adelaide and Brisbane, *viâ* Melbourne and Sydney will be established.

Hawkesbury River bridge.

The northern line runs from Newcastle and the great coal centres through the rich agricultural district of the Hunter Valley to the important part of the Colony known as New England, passing through some of the largest inland towns in New South Wales. Maitland, which is the fourth town in the Colony in point of population, being surpassed only by the City of Newcastle and the town of Parramatta. The country traversed by this line is extremely fertile, and well deserves its name of the granary of New South Wales. As the line ascends further north, it passes through a rich pastoral territory and some important townships, and reaches the plateau of New England, connecting the towns of Tamworth, Glen Innes, Armidale, and Tenterfield with the port of Newcastle. Beyond Tenterfield, a few miles of line are being laid down to meet the Queensland railways, and it is expected that during the few first months of 1888 the formal opening of the line connecting the railway systems of the two colonies will take place.

Junction with Queensland railways.

The northern system also comprises a branch from Werris Creek to Narrabri, which it is intended to prolong as far as Moree, thus placing the Namoi and Gwydir pastoral districts in direct communication with the port of Newcastle, and later on with Sydney itself. The construction of a branch from Muswellbrook to Cassilis is also contemplated. In the New England District, a line has been long projected, which would connect the town of Glen Innes with that of Inverell, on one side, and with the city of Grafton, on the Clarence, on the other, with a further extension running parallel to the coast from the latter city to the Tweed River.

Projected branch lines.

Parliament has authorized the extension, through the heart of the metropolis, of the railway system—which at present has its terminus at some little distance from the business centre of the city—to the Circular Quay. A short branch line is also being constructed, which, when completed, will connect, through the line from Homebush to Waratah, at Pearce's Corner, the northern districts of the Colony with the north shore of Port Jackson.

Circular Quay extension.

Besides the lines and branches included in the three systems above described, another line, entirely independent of them, has been constructed, connecting the metropolis with the coastal district of Illawarra, which is rich alike in coal and the produce of agriculture. So far, that part of this line which is open for traffic is entirely suburban, and only extends to Waterfall, a few miles beyond the National Park, which it connects by means of a short branch. The line is in progress, however, as far as Bulli, and will be continued to Wollongong and Kiama, and ultimately prolonged to Jervis Bay, closely following and parallel to the coast. Parliament has likewise authorized the construction of a line from the port of Eden at Twofold Bay, in the south of the Colony, to the township of Bega, in the centre of a rich agricultural district.

Illawarra line.

The contrast between the present condition of the New South Wales railways and their humble beginning in 1855 is a remarkable one. In 1856, the first year which can be fairly taken for purposes of

Growth of traffic.

comparison, the number of passengers carried on the railways was only 350,724, whilst in 1886 the number was 14,881,604, or over 42 times greater. But the tonnage of goods carried in each of these years represents a very much larger increase, having grown from 2,469 tons, in 1856, to 3,218,582, or 1,300 times greater than in the first full year of railway operations. In the earlier portion of the period of thirty years, which the above figures illustrate, it would seem that the larger part of the railway earnings was obtained from the passenger traffic, and this was, no doubt, due to the fact that the first railways were almost entirely suburban in character. It was not until the line crossed the mountains and opened up the far interior that the proportions changed, and the goods traffic became the principal source of revenue of the railways. This change began to take place in 1867, in which year the construction of railways, after being for two years almost at a standstill, received a sudden impetus, 61 miles of road having been opened in the year named, as against 19 miles only in the previous period of three years. Since 1867 the proportion of earnings from goods traffic has constantly increased in a much greater ratio than that obtained from passengers, and in 1886 the figures stood at £1,310,817, from goods, and £849,253 from passengers.

Goods principal source of revenue.

The comparison between the earnings of the earlier part of the period from 1855 to 1886—when the net result every year only represented a small portion of the interest due on the capital expended in the construction of the lines—and the subsequent period affords matter for satisfaction, although the figures for 1886 show a slight falling off. It must be borne in mind, however, in comparing the latter year with the excellent results exhibited during the period from 1874 to 1884, when considerably over 4 per cent. was realized, that the fall in receipts is due in a great measure to the previous years of drought. The season of 1886, although a prosperous one as far as the pastoral and agricultural industries are concerned, has, precisely on account of its excellence, militated against the progress of the goods traffic on the lines

Goods traffic affected by the season.

lately opened, particularly that from Dubbo to Bourke and the branches of the southern system, which tap the centre of the district of Riverina. The rainfall caused the rivers Murray, Murrumbidgee, Lachlan, and Darling to remain navigable during the whole of the season, and much of the wool and other produce, which, in ordinary years, would have found its way to Sydney for shipment, was carried down the Darling and other rivers, and forwarded to Adelaide or Melbourne. It may also be added that, from the end of 1883 to the close of 1885, 412 miles of railway were opened, chiefly through those districts which are more sparsely populated, and in times of drought suffer more than any others; whilst, in years of abundance, the rivers of the western country enter into direct and damaging competition with any other means of carriage. It should be borne in mind, in addition, that the statistics of railway returns in all parts of the world show that few lines, except perhaps suburban ones, return, during the first few years after their opening, anything like a profit; and if such is the fact in countries which are more densely populated, and whose resources are more developed than is the case in New South Wales, the result illustrated by the figures cannot be wondered at.

Effect of river traffic.

The small receipts from the new lines opened during the years 1884, 1885, and 1886, and the cost of working, necessarily lowered the general per-centage of profits. Such has been the case before in the Colony, and a glance at table No. 214 will show that during the period from 1870 to 1876, in which the per-centage of new lines yearly constructed was very small, being only 191 miles during the whole period of seven years, or 27½ miles per year, the railway profits show a constant and regular increase from 1·817 to 4·428 per cent. In the course of the following two years 178 miles of railway were constructed, and the profits immediately show a decrease in the following year to 3·741 and 3·341 per cent. From 1880 to 1884, the railways were extended chiefly to already populous and prosperous centres, to Riverina and New England, and the central districts of Wellington and Dubbo; and as these were

Loss on new lines.

Extensions reduce general returns.

years of remarkable prosperity, the railway profits suffered less than usual from the considerable extension that took place during that period. But the lines since constructed have been for the most part through pastoral country, or costly links in the system of railway communication, such as the bridge and 3 miles of line connecting the railways of New South Wales and Victoria at Albury. In these and other cases, as, for instance, the portion of the branch from Murrumburrah to Blayney, intended to connect the southern and western railway systems, which, at present, is only opened as far as Young, the value of the new lines will not be felt until the entire systems, of which they form a part, are harmoniously at work. This will apply equally in the case of the line now being constructed from Homebush to Waratah, which will connect the northern railways with the metropolis. A large sum of money has been expended on each station on the line from Homebush to the Hawkesbury, and from the opposite shore of the river to Waratah, but until the completion of the bridge over the Hawkesbury River the line cannot be expected to return the interest on the money expended upon it. Small returns on expensive incompleted branches necessarily tend to diminish greatly the profits on a railway system taken as a whole; but such is the history of railway construction in all parts of the world, and New South Wales is no exception to the general rule. Expensive new lines result in an increase of the percentage of working expenses to the gross earnings, as these lines have to be maintained in full working order and repair whilst actually returning in gross earnings little over the cost of maintenance.

Light lines

Among the lines recently authorized, the projected line from Orange to Wilcannia, *viâ* Forbes, will be constructed on a different principle, the gauge of 4 ft. 8½ in., which has been adopted throughout the Colony remaining the same, but the lines being of lighter and less costly construction than those already in existence. The almost uniformly level character of the country through which these extensions will be carried facilitates the adoption of the light line principle, and a considerable amount in the cost of construction will thus be saved.

Average cost per mile.

The following table will show the average cost of construction per mile up to 31st December, 1886, of the various branches of the railway system of the Colony. The average cost for the whole of the lines is calculated to be £12,744, including all charges, a figure, which, considering the character, of some parts of the country through which the lines have been carried, and the cost of labour, which is considerably greater in New South Wales than in other parts of the world, is by no means a high one.

Cost per mile in New South Wales.

No. 195.—Statement showing Cost of Construction and Cost per Mile open on different Sections of the Railway Lines, to 31st December, 1886 :—

| Lines opened for Traffic. | Length in Miles. | Total Cost. | Cost per Mile. |
|---|---|---|---|
| | No. | £ | £ |
| Darling Harbour Branch | 1 | 229,410 | 229,410 |
| Sydney to Granville | 13 | 1,049,931 | 80,764 |
| Haslem's Creek Branch | ½ | 6,459 | 12,918 |
| Granville to Wodonga | 374½ | 4,189,953 | 11,188 |
| Junee to Hay | 167 | 938,244 | 5,618 |
| Narrandera to Jerilderie | 65 | 407,627 | 6,271 |
| Granville to Bourke | 490 | 5,067,213 | 10,341 |
| Wallerawang to Mudgee | 85 | 947,336 | 11,145 |
| Blacktown to Richmond | 16 | 170,599 | 10,662 |
| Goulburn to Bungendore | 40 | 440,000 | 11,000 |
| Cootamundra to Gundagai | 34 | 223,155 | 6,562 |
| Orange to Molong | 22 | 191,620 | 8,710 |
| Murrumburrah to Cowra | 61 | 500,000 | 8,197 |
| Sydney to Waterfall | 24 | 360,000 | 15,000 |
| Newcastle to Tenterfield | 380 | 4,614,081 | 12,142 |
| Werris Creek to Narrabri | 97 | 553,373 | 5,705 |
| Bullock Island Branch | 1½ | 61,088 | 40,725 |
| Morpeth Branch | 4 | 57,602 | 14,400 |
| Strathfield to Hornsby | 14 | 297,288 | 21,236 |
| Cost of construction | 1,889½ | 20,304,979 | 10,746 |
| Pitt-street Tramway...... £4,878<br>Rolling stock ............... 3,086,794<br>Machinery .................. 177,170<br>Workshops — Redfern and Eveleigh ......... 499,438<br>Furniture .................. 6,296 | ...... | 3,774,576 | ...... |
| Average cost per mile, including all charges | 1,889½ | 24,079,555 | 12,744 |

Lines in pastoral country less costly.

In considering these figures in detail, it is impossible not to be struck with the difference between the cost per mile of the extensions through the pastoral country from Junee to Hay, and from Werris Creek to Narrabri, which is nearly 50 per cent. less than the general average cost of other lines. The cost of the light lines, which will shortly be in course of construction through a country of similar formation, should not reach even the figure just stated.

Cost in other countries.

The cost of railway construction in some of the principal countries of the world, for which figures are available, was as follows :—

Cost of Railway Construction in the Principal Countries of the World.

| To end of year. | Countries. | Cost per Mile. |
|---|---|---|
| | | £ |
| 1884 | United Kingdom | 42,486 |
| 1883 | Belgium | 36,508 |
| ,, | France | 27,704 |
| ,, | Germany | 21,236 |
| ,, | Russia in Europe | 20,000 |
| 1884 | India | 13,202 |
| ,, | Canada | 12,223 |
| ,, | Cape Colony | 9,217 |
| ,, | Australasia | 11,913 |
| ,, | Victoria | 13,757 |
| 1886 | New South Wales | 12,744 |
| 1884 | New Zealand | 8,713 |
| ,, | Queensland | 6,654 |
| ,, | South Australia | 6,432 |
| ,, | Tasmania | 8,430 |

## *PASSENGER TRAFFIC.*

Journeys per head of population.

The number of journeys made by each person in the Colony now averages 15·18 per annum as against 4·70 in 1877. The increase has been exceedingly rapid as well as uniform, as will be seen from the following table :—

No. 196.—Number of Journeys made per Head of Population, 1877–86.

| Year. | Number of Journeys. | Year. | Number of Journeys. |
|---|---|---|---|
| 1877 | 4·70 | 1882 | 11·30 |
| 1878 | 5·63 | 1883 | 12·31 |
| 1879 | 6·25 | 1884 | 12·78 |
| 1880 | 7·50 | 1885 | 14·51 |
| 1881 | 9·08 | 1886 | 15·19 |

The average number of journeys per inhabitant stands higher in New South Wales than in any other country, England alone excepted. The average for England is 22·8; Scotland, 13·6; United States, 6·0; and France, 5·3. The total number of persons travelling, including season ticket-holders, is shown in the next table, which should be read in connection with that just given.

No. 197.—Number of Passengers carried yearly on the New South Wales Government Railways, 1855–86 :—

| Year. | Number of Passengers carried. | Year. | Number of Passengers carried. |
|---|---|---|---|
| 1855 | 98,846 | 1871 | 759,062 |
| 1856 | 350,724 | 1872 | 753,910 |
| 1857 | 329,019 | 1873 | 875,602 |
| 1858 | 376,492 | 1874 | 1,085,501 |
| 1859 | 425,877 | 1875 | 1,288,225 |
| 1860 | 551,044 | 1876 | 1,727,730 |
| 1861 | 595,591 | 1877 | 2,957,144 |
| 1862 | 642,431 | 1878 | 3,705,733 |
| 1863 | 627,164 | 1879 | 4,317,864 |
| 1864 | 693,174 | 1880 | 5,440,138 |
| 1865 | 751,587 | 1881 | 6,907,312 |
| 1866 | 668,330 | 1882 | 8,984,313 |
| 1867 | 616,375 | 1883 | 10,272,037 |
| 1868 | 714,563 | 1884 | 11,253,109 |
| 1869 | 759,635 | 1885 | 13,506,346 |
| 1870 | 776,707 | 1886 | 14,881,604 |

Average distance travelled per passenger.

In spite of the extension of the lines into the interior of the country, the average distance travelled by each passenger has not increased. This is due to the growth of the suburban traffic, which has been more rapid, as might be expected, than the increase in long distance travelling.

No. 198.—Average Distance travelled by each Passenger, 1877–86:—

| Year. | No. of Miles. | Year. | No. of Miles. |
|---|---|---|---|
| 1877 | 12·45 | 1882 | 12·47 |
| 1878 | 12·56 | 1883 | 13·12 |
| 1879 | 13·44 | 1884 | 13·13 |
| 1880 | 13·45 | 1885 | 12·66 |
| 1881 | 12·41 | 1886 | 12·24 |

Earnings per mile.

The earnings of the passenger traffic per mile of line in operation has been decreasing for some few years past, as may be seen below.

No. 199.—Receipts from Passenger Traffic per Mile of Line open, 1877–86:—

| Year. | Amount received. | Year. | Amount received. |
|---|---|---|---|
| | £ s. d. | | £ s. d. |
| 1877 | 492 0 0 | 1882 | 525 2 0 |
| 1878 | 483 18 0 | 1883 | 508 6 0 |
| 1879 | 451 6 0 | 1884 | 520 14 0 |
| 1880 | 495 14 0 | 1885 | 499 10 0 |
| 1881 | 511 4 0 | 1886 | 474 8 0 |

Average fares per mile.

The decrease shown above is, to a large extent, due to the lowering of the fares, which will be seen from the following figures, giving the average fare paid per mile during each of the last ten years.

No. 200.—Average Fare paid per Mile per Passenger, 1877–86 :—

| Year. | Amount. | Year. | Amount. |
|---|---|---|---|
| | s. d. | | s. d. |
| 1877 | 0 1·52 | 1882 | 0 1·10 |
| 1878 | 0 1·37 | 1883 | 0 1·01 |
| 1879 | 0 1·14 | 1884 | 0 1·03 |
| 1880 | 0 1·12 | 1885 | 0 1·00 |
| 1881 | 0 1·21 | 1886 | 0 0·94 |

Average fares paid.

The reduction in the fare per mile has been attended by a reduction in the average fare paid per passenger, as the average distance travelled during 1886 was less than in any of the previous years shown on table 198.

No. 201.—Average Amount of Fare paid per Passenger, 1877–86:—

| Year. | Average amount of Fare. | Year. | Average amount of Fare. |
|---|---|---|---|
| | s. d. | | s. d. |
| 1877 | 1 6·75 | 1882 | 1 1.5 |
| 1878 | 1 5·37 | 1883 | 1 1·25 |
| 1879 | 1 3·50 | 1884 | 1 1·5 |
| 1880 | 1 3 | 1885 | 1 0·5 |
| 1881 | 1 3 | 1886 | 0 11·5 |

Receipts per train mile.

In spite, however, of the reductions in the fare payable, the receipts per train mile during 1886 were fairly maintained. This denotes a less amount of dead weight carried per ton of passengers, and will perhaps be best seen from the following figures :—

No. 202.—Receipts from Passenger Traffic per Train mile, 1877–86.

| Year. | Amount received. | Year. | Amount received. |
|---|---|---|---|
| | s. d. | | s. d. |
| 1877 | 5 5·4 | 1882 | 6 4·71 |
| 1878 | 5 2·3 | 1883 | 6 2·55 |
| 1879 | 5 0·6 | 1884 | 6 1·4 |
| 1880 | 5 7·46 | 1885 | 6 1·7 |
| 1881 | 6 1·12 | 1886 | 6 1·72 |

During 1886, in order to carry 100 tons weight of passengers, the actual weight of train load to be moved was 2,521 tons. In 1877, the load required to be moved in order to carry 100 tons weight of passengers was 3,390 tons, so that the proportion of tare saved during the period was not less than 25·6 per cent. The saving effected in this respect is shown in the following table:—

No. 203.—Receipts per 100 tons of Passengers carried one Mile.

| Year. | Earnings from carrying 100 tons of Passengers 1 mile. | Earnings from carrying 100 tons of Passengers 1 mile, including tare. |
|---|---|---|
| | s. d. | s. d. |
| 1877 | 173 6 | 5 1·4 |
| 1878 | 154 11 | 4 9 |
| 1879 | 136 10 | 4 3·9 |
| 1880 | 134 0 | 4 6·4 |
| 1881 | 144 5 | 4 1·2 |
| 1882 | 134 8 | 4 11·9 |
| 1883 | 124 10 | 4 8·7 |
| 1884 | 128 8 | 4 10·6 |
| 1885 | 126 8 | 4 10·5 |
| 1886 | 122 11 | 4 10·5 |

Receipts per head of population.

The average receipts from passenger traffic per head of population has very rapidly increased, and during 1885 stood at 17s. 10·32d., and in 1886 17s. 1·56d., as against 8s. 7·56d. in 1877. This increase is not due, as might be supposed, to the longer distance travelled by passengers; for it will be seen from a previous table that this average distance is now somewhat shorter than formerly. It arises from the large amount of travelling per head and the increased favour with which railway travelling is regarded.

No. 204.—Receipts from Passenger Traffic per Head of the Population, 1877-86:—

| Year | Amount per head. | Year. | Amount per head. |
|---|---|---|---|
| | s. d. | | s. d. |
| 1877 | 8 7·56 | 1882 | 14 9·48 |
| 1878 | 9 3·72 | 1883 | 15 10·32 |
| 1879 | 9 3·12 | 1884 | 16 11·16 |
| 1880 | 10 9 | 1885 | 17 10·32 |
| 1881 | 12 10·20 | 1886 | 17 1·56 |

## *GOODS TRAFFIC.*

Analysis of the goods traffic.

The weight of goods carried per head of population in New South Wales compares favourably with that of many countries where railways have been long established. The average tonnage for the last ten years was—

No. 205.—Tonnage of Merchandise carried per Head of Population :—

| Year. | Tons. | Year. | Tons. |
|---|---|---|---|
| 1877 | 2·27 | 1882 | 3·29 |
| 1878 | 2·47 | 1883 | 3·43 |
| 1879 | 2·49 | 1884 | 3·55 |
| 1880 | 2·35 | 1885 | 3·52 |
| 1881 | 2·68 | 1886 | 3·28 |

Tonnage compared with other countries.

The largest amount of tonnage per inhabitant is in Scotland, where it averages 9·5; the lowest important European country is Italy, with only 0·4 tons per head. The relative position of New South Wales will be seen from the next table.

No. 206.—Tonnage of Merchandise moved per Head of Population in the Principal Countries of the World :—

| | Tons. |
|---|---|
| Scotland | 9·5 |
| England and Wales | 8·4 |
| United States | 7·6 |
| Belgium | 6·5 |
| Germany | 5·3 |
| New South Wales | 3·3 |
| Canada | 3·1 |
| Australia (all colonies) | 3·0 |
| France | 2·5 |
| Ireland, Japan, British India | 0·8 |
| Spain, Italy, Russia | 0·4 to 0·6 |

**Tonnage carried.**

The absolute tonnage carried in each year on New South Wales railways is given in the following table.

No. 207.—Tonnage of Goods carried on the New South Wales Railways, 1855–86 :—

| Year. | Tonnage of Goods. | Year. | Tonnage of Goods. |
|---|---|---|---|
| 1855 | 140 | 1871 | 741,986 |
| 1856 | 2,469 | 1872 | 825,360 |
| 1857 | 20,847 | 1873 | 923,788 |
| 1858 | 33,385 | 1874 | 1,070,930 |
| 1859 | 43,020 | 1875 | 1,171,354 |
| 1860 | 55,394 | 1876 | 1,244,131 |
| 1861 | 101,130 | 1877 | 1,430,041 |
| 1862 | 205,139 | 1878 | 1,625,886 |
| 1863 | 218,535 | 1879 | 1,720,815 |
| 1864 | 379,661 | 1880 | 1,712,971 |
| 1865 | 416,707 | 1881 | 2,033,850 |
| 1866 | 500,937 | 1882 | 2,619,427 |
| 1867 | 517,022 | 1883 | 2,864,566 |
| 1868 | 596,514 | 1884 | 3,124,425 |
| 1869 | 714,113 | 1885 | 3,273,004 |
| 1870 | 766,523 | 1886 | 3,218,582 |

**Haulage.**

The average distance each ton of goods was carried during 1886 was 53·9 miles. This shows a considerable increase over the average distance of 1877, but is less than that of the three previous years.

No. 208.—Average Miles of Haulage per Ton of Goods:—

| Year. | Miles. | Year. | Miles. |
|---|---|---|---|
| 1877 | 34·1 | 1882 | 47·7 |
| 1878 | 36·1 | 1883 | 54·2 |
| 1879 | 39·2 | 1884 | 54·3 |
| 1880 | 46·5 | 1885 | 53·4 |
| 1881 | 49·1 | 1886 | 53·9 |

**Number of tons carried per mile.**

The number of tons of goods carried over each mile of line in operation has greatly decreased, especially since 1882. This is partly due to the opening of long extensions since the date mentioned, but is to no slight extent the result of the disastrous seasons which have afflicted part of the interior of the Colony.

No. 209.—Number of Tons of Goods carried per Mile of Line open :—

| Year. | Tons. | Year. | Tons. |
|---|---|---|---|
| 1877 | 2,590 | 1882 | 2,340 |
| 1878 | 2,568 | 1883 | 2,199 |
| 1879 | 2,427 | 1884 | 2,182 |
| 1880 | 2,176 | 1885 | 1,967 |
| 1881 | 2,127 | 1866 | 1,798 |

**Decline in receipts.**

The fall in the amount of goods carried per mile of line was naturally accompanied by a fall in the earning per mile from goods carriage. In 1877, the receipts from goods traffic amounted to £986 2s. per mile; in 1881, £999 10s., while in 1886 the sum received was only £732 6s.

No. 210.—Receipts from Goods Traffic per Mile of Line open :—

| Year. | Amount. | | | Year. | Amount. | | |
|---|---|---|---|---|---|---|---|
| | £ | s. | d. | | £ | s. | d. |
| 1877 | 986 | 2 | 0 | 1882 | 992 | 8 | 0 |
| 1878 | 942 | 12 | 0 | 1883 | 975 | 4 | 0 |
| 1879 | 892 | 0 | 0 | 1884 | 936 | 2 | 0 |
| 1880 | 979 | 10 | 0 | 1885 | 807 | 12 | 0 |
| 1881 | 999 | 10 | 0 | 1886 | 732 | 6 | 0 |

**Average earnings per ton.**

The average earnings from the carriage of goods per ton per mile have fallen greatly during the last ten years. The lowering of freight is chiefly, but not entirely responsible for the decline, as, especially during late years, the increase in the amount of goods carried, which is shown on table No. 207, has been chiefly among those descriptions of goods which are carried at the least remunerative rates. The combined result of the action of the reduced freights, and the carriage of a larger proportion of low-rate goods, will best be seen from the column of the following table giving the net average receipts for a ton of goods, including tare, carried one mile. In 1877 the earnings amounted to ·62 d. per ton, while in 1886 it had fallen to ·38 d.

No. 211.—Receipts from Goods Traffic :—

| Year. | Receipts per ton per mile, not including tare. | Receipts per ton per mile, including tare. | Receipts per ton of merchandise carried. | Receipts per train mile. |
|---|---|---|---|---|
| | pence. | pence. | s. d. | s. d. |
| 1877 | 2·68 | 0·62 | 7 7·3 | 9 9·6 |
| 1878 | 2·44 | 0·52 | 7 2·4 | 8 1·1 |
| 1879 | 2·25 | 0·49 | 7 4·2 | 7 7·1 |
| 1880 | 2·32 | 0·54 | 9 0 | 8 3·9 |
| 1881 | 2·29 | 0·55 | 9 5·4 | 8 2·8 |
| 1882 | 2·13 | 0·44 | 8 5·8 | 7 4·5 |
| 1883 | 1·96 | 0·40 | 8 10·3 | 6 8 |
| 1884 | 1·90 | 0·41 | 8 6·9 | 6 9·1 |
| 1885 | 1·86 | 0·39 | 8 2·5 | 6 10 |
| 1886 | 1·81 | 0·38 | 8 1·7 | 7 0·7 |

Receipts per head of population.

The receipts per head of population from goods traffic reached the maximum in 1883, when they amounted to £1 10s. 5·16d. In 1884, they remained at the same figure, but in 1886, the amount received had fallen to £1 6s. 7·76d. The receipts during each year since 1877, are shown below.

No. 212.—Receipts from Goods Traffic per Head of the Population, 1877-86 :—

| Year. | Amount. | Year. | Amount. |
|---|---|---|---|
| | £ s. d. | | £ s. d. |
| 1877 | 0 17 3·72 | 1882 | 1 7 11·40 |
| 1878 | 0 18 1·68 | 1883 | 1 10 5·16 |
| 1879 | 0 18 3·72 | 1884 | 1 10 5·16 |
| 1880 | 1 1 2·88 | 1885 | 1 8 10·32 |
| 1881 | 1 5 1·56 | 1886 | 1 6 8·76 |

Gross earnings and working expenses.

The gross amount received from all sources during 1886 was £2,160,070. This was a larger sum than was obtained in any year, 1885 alone excepted. The cost of working the railways was, however, also greater, so that the net earnings during 1886 were less than in any year since 1880. The following table gives the gross earnings and working expenses with the proportion per cent. of the expenditure to the receipts.

No. 213.—Gross Earnings and total Working Expenses, and Per-centage of Working Expenses to Gross Earnings, 1885–86 :—

| Year. | Gross Earnings. | Working Expenses. | Per-centage of working expenses to gross earnings. |
|---|---|---|---|
| | £ | £ | per cent. |
| 1855 | 9,249 | 5,959 | 64·43 |
| 1856 | 32,283 | 21,788 | 67·49 |
| 1857 | 43,387 | 31,338 | 72·23 |
| 1858 | 62,309 | 43,928 | 70·50 |
| 1859 | 61,760 | 47,598 | 77·07 |
| 1860 | 62,269 | 50,427 | 80·98 |
| 1861 | 75,004 | 61,187 | 81·58 |
| 1862 | 103,871 | 68,725 | 66·16 |
| 1863 | 123,941 | 96,867 | 78·16 |
| 1864 | 147,653 | 103,715 | 70·24 |
| 1865 | 166,032 | 108,926 | 65·60 |
| 1866 | 168,535 | 106,230 | 63·64 |
| 1867 | 189,072 | 117,324 | 62·08 |
| 1868 | 224,359 | 144,201 | 64·29 |
| 1869 | 264,975 | 176,362 | 66·57 |
| 1870 | 307,142 | 206,003 | 67·08 |
| 1871 | 355,322 | 197,065 | 55·46 |
| 1872 | 424,989 | 207,918 | 48·92 |
| 1873 | 484,236 | 238,035 | 49·16 |
| 1874 | 536,575 | 257,703 | 48·03 |
| 1875 | 614,648 | 296,174 | 48·18 |
| 1876 | 693,225 | 339,406 | 48·96 |
| 1877 | 815,920 | 418,985 | 51·35 |
| 1878 | 902,989 | 536,988 | 59·47 |
| 1879 | 952,366 | 604,721 | 63·49 |
| 1880 | 1,161,017 | 647,719 | 55·79 |
| 1881 | 1,444,226 | 738,334 | 51·12 |
| 1882 | 1,698,863 | 934,635 | 55·02 |
| 1883 | 1,931,464 | 1,177,788 | 60·97 |
| 1884 | 2,086,237 | 1,301,259 | 62·37 |
| 1885 | 2,174,368 | 1,458,153 | 67·06 |
| 1886 | 2,160,070 | 1,492,992 | 69·12 |

**Net revenue.** The net revenue for 1886 was £667,078, while the average amount of capital expended on lines in operation during the year was £24,079,555, so that the net returns per cent. was only 2·901, which is less than received in any year since 1871. The interest payable on the capital expended during 1886 was £1,085,352, or at the rate of 4·72 per cent. The net deficiency in the railways of the Colony to be made good out of revenue was thus £418,274.

No. 214.—Net Earnings and Interest on Capital expended on the Railways from 1855 to 1886:—

| Year. | Net Earnings. | Interest on capital. | Year. | Net Earnings. | Interest on capital. |
|---|---|---|---|---|---|
| | £ | per cent. | | £ | per cent. |
| 1855 | 3,290 | ·638 | 1871 | 158,257 | 2·688 |
| 1856 | 10,495 | 1·536 | 1872 | 217,071 | 3·397 |
| 1857 | 12,050 | 1·176 | 1873 | 246,201 | 3·653 |
| 1858 | 18,381 | 1·492 | 1874 | 278,872 | 4·074 |
| 1859 | 14,162 | 1·107 | 1875 | 318,474 | 4·396 |
| 1860 | 11,841 | ·832 | 1876 | 353,819 | 4·428 |
| 1861 | 13,817 | ·899 | 1877 | 396,935 | 4·468 |
| 1862 | 35,146 | 1·842 | 1878 | 366,001 | 3·741 |
| 1863 | 27,073 | 1·097 | 1879 | 347,645 | 3·341 |
| 1864 | 43,938 | 1·669 | 1880 | 513,298 | 4·358 |
| 1865 | 57,106 | 2·079 | 1881 | 705,892 | 5·307 |
| 1866 | 62,305 | 2·236 | 1882 | 764,228 | 5·135 |
| 1867 | 71,748 | 2·185 | 1883 | 753,676 | 4·484 |
| 1868 | 80,158 | 1·973 | 1884 | 784,978 | 4·201 |
| 1869 | 88,613 | 1·892 | 1885 | 716,215 | 3·370 |
| 1870 | 101,139 | 1·817 | 1886 | 667,078 | 2·901 |

Comparison with other countries.

Points of comparison between the railways of a large and thinly inhabited country such as New South Wales and the countries of the Old World are difficult to obtain. The following tables, however, illustrate the population and area of territory per mile of line open in all the principal countries of the world. It will be seen that New South Wales comes fairly well out of the comparison.

No. 215.—Population of some of the Principal Countries, Total Length of Railways open in, and Population to, each Mile of Railway open :—

| Countries. | Population. | Miles of Railways open. | Population to each Mile of Railway. |
|---|---|---|---|
| United Kingdom | 36,400,000 | 18,864 | 1,930 |
| United States | 50,152,000 | 120,519 | 416 |
| France | 37,321,000 | 17,684 | 2,110 |
| Germany | 45,234,000 | 21,910 | 2,065 |
| Austria Hungary | 37,800,000 | 12,151 | 3,111 |
| Italy | 28,459,000 | 5,693 | 4,999 |
| Spain | 16,634,000 | 5,218 | 3,188 |
| Belgium | 5,720,000 | 2,721 | 2,102 |
| Holland | 4,225,000 | 1,266 | 3,400 |
| Russia in Europe | 86,359,000 | 14,478 | 5,965 |
| Sweden | 4,565,000 | 4,032 | 1,132 |
| Norway | 1,925,000 | 822 | 2,342 |
| Denmark | 1,969,000 | 1,005 | 1,959 |
| Switzerland | 2,846,000 | 1,673 | 1,701 |
| Portugal | 4,160,000 | 940 | 4,424 |
| Canada | 4,324,000 | 8,805 | 491 |
| British India | 253,941,000 | 10,317 | 24,614 |
| Cape of Good Hope | 1,122,000 | 969 | 1,158 |
| New South Wales * | 1,001,966 | 1,935 | 517 |
| Victoria | 1,003,043 | 1,753 | 572 |
| Queensland | 342,614 | 1,555 | 220 |
| South Australia | 312,758 | 1,382 | 226 |
| Western Australia | 39,584 | 154 | 257 |
| Tasmania | 137,211 | 303 | 453 |
| New Zealand | 589,386 | 1,802 | 326 |

* The figures for Australia relate to 1886; those for other Countries are for 1883.

No. 216.—Area of some of the Principal Countries, Total Length of Railways open and Area to each Mile of Railway :—

| Countries. | Area in Square Miles. | Miles of Railways open. | Square Miles per Mile of Railways open. |
|---|---|---|---|
| United Kingdom (1884) | 121,305 | 18,864 | 6·4 |
| United States | 3,008,400 | 120,519 | 25·0 |
| France | 204,028 | 17,684 | 11·5 |
| Germany | 208,368 | 21,910 | 9·5 |
| Austria Hungary | 240,262 | 12,151 | 19·8 |
| Italy | 124,380 | 5,693 | 21·8 |
| Spain | 195,702 | 5,218 | 37·5 |
| Russia in Europe | 1,887,713 | 14,478 | 130·4 |
| Sweden | 170,928 | 4,032 | 42·4 |
| Norway | 121,740 | 823 | 148·1 |
| Denmark | 14,759 | 1,005 | 14·7 |
| Switzerland | 15,976 | 1,673 | 9·5 |
| Portugal | 34,595 | 940 | 36·8 |
| Belgium | 11,373 | 2,721 | 4·2 |
| Holland | 12,680 | 1,261 | 10·0 |
| Canada | 3,470,392 | 8,805 | 394·1 |
| British India | 1,377,540 | 10,317 | 133·5 |
| Cape of Good Hope | 213,636 | 969 | 220·5 |
| New South Wales * | 310,700 | 1,935 | 160·1 |
| Victoria | 87,884 | 1,753 | 50·1 |
| Queensland | 668,224 | 1,555 | 429·7 |
| South Australia | 903,425 | 1,382 | 653·7 |
| Western Australia | 975,920 | 154 | 6,337·8 |
| Tasmania | 26,375 | 303 | 87·0 |
| New Zealand | 104,403 | 1,809 | 57·6 |

* The figures for the Australasian Colonies refer to 1886, those for other Countries are for 1883.

Lines open, under construction, and authorized.

Up to 31st December, 1886, the total length of lines opened for traffic was 1,889·5 miles, and 267 miles were in course of construction at that date, making a total of 2,156·5 miles of road either open for traffic or being constructed. Besides this, Parliament has authorized the construction of 1,206·5 miles of railroad, and the state of the railway progress of the Colony stood as under at the close of the year 1886.

| | Miles. |
|---|---|
| Lines open for traffic | 1,889·5 |
| Lines under construction | 267 |
| Lines authorized | 1,206·5 |
| Total length of line | 3,363 |

Capital Expended.

The total amount of money expended on railway construction at the close of 1886 was £27,353,579, of which £24,079,555 had been spent on lines open for traffic. Of that expenditure £23,321,668 was defrayed from loans, and £757,887 from ordinary revenue.

Rolling stock.

The rolling stock in the service of the Railway Department consisted of 208 locomotive engines for passenger traffic, and 198 for goods, or 406 in all; 940 passenger carriages, and 8,364 goods vehicles.

## *PRIVATE RAILWAY LINE.*

Deniliquin to Moama line.

In the Colony of New South Wales, the Government policy has hitherto been to keep the railways under State management and control, and this policy has been departed from in one instance only. The Government granted permission to a company to construct a line from Deniliquin, in the centre of the Riverina district, to Moama, on the Murray, where it meets the railway system of Victoria. A considerable proportion of the wool and other produce of Riverina reaches the Melbourne market by this route. The line is 45 miles in length, and was constructed under a special Act of Parliament, assented to on the 3rd March, 1874, the land required was granted by the New South Wales Government, right being reserved in the Act for the purchasing of the line by the Government at any time after twenty-one years from the passing of the Act. The capital of the Company is £125,000, of which £100,000 has been called up, while £50,000 was raised by by debentures. The dividends during the last few years have been at the rate of 8 per cent., though for some years after the opening of the line the Company paid dividends at the rate of 10 per cent.

## *CITY TRAFFIC, TRAMWAYS, Etc.*

Within the City of Sydney the public traffic, with the exception of the tramway system, which places the various suburbs in constant communication with the city, is controlled by Municipal regulations and by-laws, administered by the Transit Commissioner's Department, under the supervision of the Mayor and Aldermen. The tramways, like the railways, are the property of the Government, and are managed by a Superintendent and his staff, under the control of the Commissioner for Railways. There were on the 21st December, 1886, 36·5 miles of tramway in operation, of which 27·5 miles were within the metropolitan area. The gross revenue from all sources during the year was £234,143, while the working expenses amounted to £208,687, leaving a net profit of £25,456. The total expenditure on tramways to the close of the year 1886 was £985,602, £854,260 having been expended on construction and rolling stock, the balance, viz., £131,342, representing the cost of surveys for lines not carried out, and of land resumed for tramway purposes, but not utilized. The net earnings shown above represent a return of 2·98 per cent. on the capital expended on lines in operation.

Tramways.

Revenue and expenditure.

The expenditure on metropolitan lines alone was £742,113, the net earnings being £24,630, representing a return of 3·32 per cent., which is much more satisfactory than anything obtained since 1882. The interest obtained during each year was :—

| Year. | Mileage. | Capital. Expenditure. | Interest Returns on Capital per cent. |
|---|---|---|---|
| | | £ | |
| 1880 | 4 | 60,218 | 12·34 |
| 1881 | 9½ | 169,450 | 6·16 |
| 1882 | 22 | 412,561 | 6·80 |
| 1883 | 25 | 544,105 | 2·22 |
| 1884 | 27½ | 643,111 | 0·76 |
| 1885 | 27½ | 708,109 | 2·17 |
| 1886 | 27½ | 742,113 | 3·32 |

**Passenger traffic.**

During 1886 the passenger traffic, which is the sole source of revenue of the city and suburban tramways, was represented by 52,977,578 fares, which was an increase of 14,378,558 fares on the total receipts of the preceding year. The increase shown is not entirely due to an increase in the number of persons travelling, but to the substitution of penny tickets for tickets of various prices which were available in the former year.

The various sections of the tramways yield very different returns, as may be seen from the following table :—

| Tramway Lines. | Return paid on Capital. |
|---|---|
| Line to the Railway | 4·23 per cent. gain. |
| Randwick and Coogee | 3·05 ,, ,, |
| Waverley, Woollahra and Bondi | 10·04 ,, ,, |
| Newtown and Marrickville | 8·16 ,, ,, |
| Leichhardt | 2·19 ,, ,, |
| Camden | 3·36 ,, ,, |
| Crown-street | 2·80 ,, loss. |
| Waterloo and Botany | 1·70 ,, ,, |
| Glebe Point and Forest Lodge | 5·56 ,, ,, |
| North Shore | 1·63 ,, ,, |

**Omnibus traffic.**

Besides the tramways the citizens of Sydney are well provided with other means of travelling within the city and suburban limits, as there are numerous omnibus and cab proprietaries. At the head of these stands the Sydney Tramway and Omnibus Company. No tramways are maintained by this company, as its name would imply, but lines of omnibuses have been established.

by it in all the principal routes of traffic from the city to the suburbs. This company has a working plant comprising 800 horses and 105 vehicles, and employs 216 men.

Other public conveyances.

Besides these, there are public vehicles belonging to private individuals, or small associations, plying between the city and some of the most distant suburbs to the number of 110.

The number of cabs registered and licensed by the Transit Commissioners under the Municipal by-laws amounts to 1,104, together with 466 vans and other vehicles; and the public interest is secured against the possibility of exaggerated demands on the part of licensed cabmen and other drivers of public vehicles by a system of fares fixed on a scale liberal to the licensee, whilst not too high for the public to fairly pay. The drivers are placed under the direct control of the Transit Commissioners, who have power to obtain redress from the owners of the vehicles, should any just complaints be made against them.

### *POSTS AND TELEGRAPHS.*

Postal and telegraphic communication,

In the matter of postal and telegraphic communication the Colony of New South Wales is liberally provided. Not only is the intercolonial telegraphic system as perfect as can be desired, but the metropolis is in direct communication with Europe and the outer world by means of the cables connecting with the various Asiatic continental telegraph lines.

A submarine cable also connects the Colony with New Zealand, and has its terminus on Australian soil, within sight of the spot where Captain Cook landed on the shores of Botany Bay, and within a stone's throw of the monument erected to the memory of the unfortunate and gallant emulator of the great English navigator; the La Pérouse monument and the tomb of Père Le Receveur, the botanist attached to his staff, being only a few yards away from the station of the New Zealand submarine cable.

Communication with Europe and America.

From Sydney, four great lines of ocean steamships—the Peninsular and Oriental Compay, the Orient Company, the Messageries Maritimes of France, and the steamers of the North German Lloyd's—carry the mails from Australia to England and the continent of Europe, whilst a direct line of steamers under contract with the Governments of New South Wales, New Zealand, and America, carry the mails to New Zealand and the United States. Besides these means of communication with the Old World, the intercolonial and local lines of telegraph are numerous and efficient. There is not a township of any importance which is not connected with the metropolis by wire, or that is not reached by Her Majesty's mail, either by train or coach.

At the end of December, 1886, there were in the Colony 20,797 miles of telegraphs in operation, and the total cost of the construction of the various lines reached the sum of £666,028 6s. 11d. There were 425 telegraph stations, and the total amount earned by the system of telegraphs was £184,053 6s.

Subsidies for mail contracts.

The Government of the Colony pays an annual subsidy of £15,118 to the submarine cable companies; and for the carriage of mails and parcels, coming under the parcels post arrangements, a sum of £98,738 was also paid to the Peninsular and Oriental, Orient, American, and other steam companies carrying mails to Europe. Throughout the principal parts of the country the mails are carried by the railway authorities, and, where no communication exists by rail, by contract with the proprietors of coaching lines. In more remote districts, where there are no lines of coaches established, as on the sheep and cattle stations of the far interior, a service has been organized by means of horsemen, who contract with the Government to carry the mails to the furthest points. The newspapers published in the Colony are carried free of charge by the postal authorities, and newspaper literature forms a very large part of the mental pabulum of the ordinary bushman. The following return shows the operations of the post office during the ten years ending 31st December, 1886.

**Details of working.**

### No. 217.—Offices, Employés, Income, Expenditure, &c., of New South Wales Post Office, for the years, 1876–86 :—

| Year. | Number of Post Offices. | Number of Receiving Offices. | Number of Persons employed. | Number of Miles travelled by, Mail Conveyance. | Extent of Postal Lines in Miles. | Income. | Approximate Expenditure. |
|---|---|---|---|---|---|---|---|
| 1876 | 782 | 18 | 1,090 | 3,891,906 | 18,418 | 128,641 | 206,798 |
| 1877 | 810 | 48 | 1,180 | 4,095,530 | 19,508 | 154,170 | 226,305 |
| 1878 | 847 | 75 | 1,272 | 4,389,925 | 20,176 | 155,621 | 248,216 |
| 1879 | 884 | 101 | 1,452 | 4,776,925 | 21,368 | 171,366 | 263,787 |
| 1880 | 927 | 119 | 1,536 | 5,246,373 | 22,427 | 194,084 | 268,128 |
| 1881 | 973 | 155 | 1,691 | 5,467,182 | 23,094 | 205,446 | 273,451 |
| 1882 | 1,005 | 169 | 1,824 | 5,861,317 | 23,923 | 229,910 | 288,186 |
| 1883 | 1,046 | 188 | 1,960 | 6,264,300 | 25,162 | 261,812 | 326,674 |
| 1884 | 1,085 | 206 | 2,076 | 6,509,446 | 26,530 | 289,192 | 351,253 |
| 1885 | 1,115 | 202 | 2,155 | 6,621,996 | 26,683 | 316,171 | 375,964 |
| 1886 | 1,157 | 217 | 2,307 | 6,891,200 | 27,094 | 330,591 | 396,710 |

**Postal business carried on at a loss.**

These figures show that the postal department is carried on at a yearly loss to the State of several thousands of pounds. This loss has marked the operations of the department for many years, and is, in a large measure, due to the wide area over which the population is scattered throughout the country, thus considerably increasing the cost of carriage of the mails. It is held, nevertheless, that the public must be served at any price, and the safe and regular despatch and delivery of mails is an item of too great importance in the political, commercial, and social life of the Colony to be neglected, even if its efficiency is obtained at the cost of an annual loss to the revenue. An idea of the magnitude of the work discharged by the New South Wales Post Office may be gathered from the following return.

### No. 218.—Letters, Newspapers, &c., passing through the Post Office:—

| Year. | Number of Letters |  | Number of Newspapers. |  | Packets and Book Parcels. |  | Total. |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  | Foreign. | Inland and town. | Foreign. | Inland. | Inland. | Foreign. | Letters. | Newspapers. | Packets, &c. |
| 1876 | 1,852,400 | 12,614,500 | 1,508,300 | 5,408,900 | 304,400 | 109,500 | 14,466,900 | 6,917,200 | 413,900 |
| 1877 | 1,979,500 | 14,529,500 | 1,652,000 | 6,733,000 | 263,600 | 135,000 | 16,509,000 | 8,385,000 | 398,600 |
| 1878 | 2,220,600 | 15,939,300 | 1,657,600 | 7,811,600 | 403,700 | 133,100 | 18,159,900 | 9,469,200 | 536,800 |
| 1879 | 2,442,700 | 16,964,600 | 2,020,000 | 9,447,100 | 459,200 | 136,300 | 19,407,300 | 11,467,100 | 595,500 |
| 1880 | 2,776,000 | 18,956,500 | 2,381,200 | 11,409,800 | 565,000 | 146,600 | 21,732,500 | 13,791,800 | 711,600 |
| 1881 | 3,159,400 | 23,196,200 | 2,726,400 | 13,801,500 | 670,800 | 180,500 | 26,355,600 | 16,527,900 | 851,300 |
| 1882 | 3,589,200 | 25,737,300 | 2,720,600 | 15,361,700 | 1,044,200 | 218,600 | 29,326,500 | 18,082,300 | 1,262,800 |
| 1883 | 4,168,100 | 31,258,300 | 3,014,500 | 16,562,800 | 1,379,200 | 269,700 | 35,426,400 | 19,577,300 | 1,648,900 |
| 1884 | 4,947,200 | 37,289,800 | 3,689,600 | 21,373,900 | 2,705,900 | 316,200 | 42,237,000 | 25,063,500 | 3,022,100 |
| 1885 | 5,328,200 | 34,023,000 | 3,987,900 | 21,579,500 | 2,894,200 | 552,600 | 39,351,200 | 25,567,400 | 3,446,800 |
| 1886 | 5,582,700 | 37,267,200 | 4,276,300 | 25,256,100 | 3,983,000 | 865,800 | 42,849,900 | 29,532,400 | 4,848,800 |

Increase of Postal business

The growth of the business of the Postal Department within the last ten years has been very remarkable. The increase in the number of letters despatched from 14,466,900, in 1876, to 42,849,900, in 1886, is certainly considerable, but it is small when compared with the increase in the number of newspapers and packets carried by the Post Office, which in the former case rose from 6,917,200, in 1876, to 29,532,400, in 1886; and in the latter, from 413,900, to 4,848,800.

Telegraphic business.

As to the telegraph lines, they also show a proportionate increase in the number of telegrams transmitted and the amounts received for same, as illustrated in the following table, which gives a retrospective idea of the business of the Telegraph Department from 1876 to 1886.

No. 219.—Electric Telegraphs :—

| Year. | No. of. Stations | No. of Telegrams. | Total Receipts. | | | *Revenue received. | | | No. of Miles of Wire. | Cost of Construction. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | £ | s. | d. | £ | s. | d. | | £ | s. | d. |
| 1877 | 190 | 1,001,884 | 96,357 | 10 | 2 | 65,645 | 6 | 0 | 9,761 | 343,973 | 4 | 8 |
| 1878 | 236 | 1,132,287 | 98,125 | 8 | 7 | 76,226 | 18 | 11 | 11,700 | 413,258 | 4 | 2 |
| 1879 | 273 | 1,175,218 | 100,033 | 4 | 9 | 80,490 | 0 | 6 | 12,426 | 437,120 | 5 | 3 |
| 1880 | 289 | 1,319,537 | 123,172 | 4 | 5 | 84,110 | 4 | 8 | 13,188 | 462,225 | 12 | 0 |
| 1881 | 318 | 1,607,206 | 125,335 | 17 | 2 | 98,664 | 17 | 4 | 14,278 | 492,211 | 6 | 5 |
| 1882 | 345 | 1,965,931 | 153,554 | 11 | 4 | 120,205 | 13 | 4 | 15,901 | 536,309 | 10 | 3 |
| 1883 | 368 | 2,107,288 | 165,276 | 4 | 10 | 134,643 | 2 | 4 | 17,272 | 564,315 | 19 | 4 |
| 1884 | 394 | 2,334,652 | 176,260 | 13 | 7 | 146,386 | 8 | 2 | 18,681 | 601,459 | 13 | 2 |
| 1885 | 404 | 2,625,992 | 191,191 | 17 | 4 | 155,073 | 10 | 3 | 19,864 | 641,669 | 0 | 7 |
| 1886 | 425 | 2,661,126 | 184,053 | 6 | 0 | 158,127 | 14 | 0 | 20,797 | 666,028 | 6 | 11 |

* Proportion of receipts due to the Colony.

# PART XIV.

## Finance and Public Wealth.

THE Public Revenue of New South Wales largely exceeds that of any other Australian Colony. The total amount raised by each colony during 1886, as well as the revenue per inhabitant, were as follows :—

| Colony. | Total Revenue. | Revenue per head of the population. |
|---|---|---|
| | £ | £ s. d. |
| New South Wales | 7,594,301 | 7 15 0 |
| Victoria | 6,481,021 | 6 11 3 |
| Queensland | 2,810,147 | 8 7 10 |
| South Australia | 1,975,269 | 6 6 1 |
| Western Australia | 388,564 | 10 7 11 |
| Tasmania | 568,924 | 4 4 0 |
| New Zealand | 3,688,016 | 6 6 6 |
| Revenue of Australasian Colonies... | 23,506,242 | 6 19 5 |

Revenue for 1825.

Reliable information respecting the revenue and expenditure of New South Wales is not obtainable earlier than 1825, in which year the public receipts amounted to £71,682, and the expenditure to £93,020. Sixty-one years afterwards, at the close of 1886, the revenue had increased more than one hundred fold, though the population had, during the same interval, only increased thirty fold. From 1825 to 1840, memorable in the annals of the Colony as that in which transportation ceased, the advance in the revenue was very rapid. In that year the public receipts amounted to £683,112, a sum not again reached until 1853, two years after the discovery of gold. From 1853 to 1859 the revenue made great strides, and amounted to £1,522,668 for the year last mentioned. On the 1st December, 1859, the separation of Queensland took place, and there was consequently a

Steady increase in revenue.

falling off in the revenue of this Colony in the following year, the amount collected being £1,319,779. Since 1860 the income of the Colony has increased in a fairly regular manner, as may be seen from the following statement :—

No. 220.—Revenue of New South Wales.

| Year. | Amount. | Year. | Amount. |
|---|---|---|---|
| | £ | | £ |
| 1860 | 1,308,925 | 1874 | 3,514,314 |
| 1861 | 1,421,831 | 1875 | 4,126,303 |
| 1862 | 1,557,639 | 1876 | 5,037,661 |
| 1863 | 1,534,187 | 1877 | 5,751,878 |
| 1864 | 1,661,805 | 1878 | 4,991,919 |
| 1865 | 1,899,468 | 1879 | 4,481,665 |
| 1866 | 2,012,079 | 1880 | 4,911,990 |
| 1867 | 2,012,042 | 1881 | 6,714,327 |
| 1868 | 2,107,157 | 1882 | 7,418,536 |
| 1869 | 2,202,970 | 1883 | 6,470,341 |
| 1870 | 2,102,697 | 1884 | 7,117,592 |
| 1871 | 2,238,900 | 1885 | 7,587,368 |
| 1872 | 2,812,011 | 1886 | 7,594,301 |
| 1873 | 3,330,913 | | |

Taxation very light.

Though a revenue of £7,600,000 is derived from a population of one million, the people of New South Wales are very lightly taxed, the amount falling upon each person in the community for the last sixteen years, averaging only £2 3s. 11d., of which amount the bulk is obtained indirectly through the Customs House.

No. 221.—Amount of Taxation per Head for the years 1871 to 1887 :—

| Year. | Amount of taxation per head. | Year. | Amount of taxation per head. |
|---|---|---|---|
| | £ s. d. | | £ s. d. |
| 1871 | 2 1 10 | 1880 | 1 19 1 |
| 1872 | 2 5 7 | 1881 | 2 6 7 |
| 1873 | 2 10 2 | 1882 | 2 7 11 |
| 1874 | 2 2 6 | 1883 | 2 5 4 |
| 1875 | 1 18 5 | 1884 | 2 8 10 |
| 1876 | 1 18 5 | 1885 | 2 8 4 |
| 1877 | 1 19 3 | 1886 | 2 13 4 |
| 1878 | 1 19 10 | | |
| 1879 | 1 16 10 | Average for 17 years......... | 2 3 11 |

Increased revenue per head.

The increase per head since 1880 amounts to 14s. 3d., and is due chiefly to the income derived from stamps. The increase during 1886 over the rates of 1885 amounted to 5s. per head, and is the result of the additional revenue yielded by the *ad valorem* duties now repealed.

It has been estimated that the total income of the inhabitants of the Colony during 1886 amounted to £50,500,000. The revenue derived from taxation was, as shown in table No. 222, £2,611,835; equivalent therefore to a tax of 5·17 per cent. on the income of each person in the community.

Revenue from taxation.

Dividing the revenue derived from taxation into the four main divisions of Customs, Excise, Stamps and Licenses, the amount received under each head during the year 1886 was :—

No. 222.—Revenue from Taxation, 1886.

| | £ | s. | d. |
|---|---|---|---|
| Customs :— | | | |
| Spirits | 699,106 | 12 | 3 |
| Wine | 48,948 | 19 | 8 |
| Ale and beer | 69,207 | 11 | 1 |
| Tobacco and cigars | 164,957 | 10 | 4 |
| Tea | 106,434 | 8 | 10 |
| Coffee and chicory | 13,171 | 4 | 8 |
| Sugar and molasses | 125,843 | 2 | 11 |
| Opium | 22,091 | 13 | 5 |
| Rice | 17,670 | 19 | 2 |
| Dried fruits | 51,149 | 2 | 5 |
| Malt | 14,661 | 14 | 5 |
| Hops | 15,715 | 17 | 4 |
| Ad valorem duties | 274,084 | 3 | 7 |
| Specific duties | 433,594 | 16 | 5 |
| Bonded warehouse, 20 Vic. No. 21 | 11,803 | 15 | 4 |
| Rent of goods in Queen's warehouses, &c. | 129 | 11 | 2 |
| Total, Customs | £2,068,571 | 3 | 0 |
| Excise :— | | | |
| Duty on spirits distilled in the Colony | 5,813 | 12 | 3 |
| Duty on tobacco, cigars, and cigarettes | 102,978 | 5 | 10 |
| Tobacco factory license fees | 1,041 | 5 | 0 |
| Total, Excise | £109,833 | 3 | 1 |
| Stamps | £307,992 | 12 | 0 |

| | | | |
|---|---|---|---|
| Licenses :— | | | |
| Wholesale spirit dealers | £9,081 | 0 | 0 |
| Auctioneers | 4,784 | 19 | 7 |
| Retail and fermented spirituous liquors | 95,256 | 0 | 0 |
| Billiard and bagatelle licenses | 8,543 | 0 | 0 |
| Distillers and rectifiers | 88 | 14 | 0 |
| Hawkers and pedlers | 2,576 | 0 | 5 |
| Pawnbrokers | 651 | 7 | 6 |
| Colonial wine, cider, and perry licenses | 1,205 | 0 | 0 |
| Licenses under the Gunpowder Act of 1876 | 679 | 10 | 0 |
| Licenses to sell tobacco, cigars and cigarettes | 2,008 | 15 | 0 |
| All other licenses | 563 | 17 | 8 |
| Total, Licenses | £125,438 | 4 | 2 |
| Summary :— | | | |
| Customs | 2,068,571 | 3 | 0 |
| Excise | 109,833 | 3 | 1 |
| Stamps | 307,992 | 12 | 0 |
| Licenses | 125,438 | 4 | 2 |
| Total, Taxation | £2,611,835 | 2 | 3 |

Under the heads of Trade and Commerce will be found some particulars of the Revenue from Customs as well as that obtained from Excise. The cost of collecting revenue by the Customs Department averages about 2¾ per cent., a very moderate sum, when the large area of the Colony and the length of its frontiers are considered.

Stamp duties.

Stamp Duties were abolished in 1873, but reimposed in 1880. During 1886 they yielded a revenue of £307,993, or about 6s. 3d. per head, while the cost of collection was very trifling, amounting in 1886 to only 1·44 per cent. of the amount received.

Stamp Duties are imposed :—

1. On all agreements not under seal, except such as relate to the hire of servants or employés, and to the sale of goods.

2. On bills of exchange, excepting Government Debentures, Treasury notes or drafts, or advance notes issued by the master of a ship in favour of a seaman.

3. On bills of lading, and on all drafts or cheques, except those issued on account of the Public Service.

4. On all conveyances or tranfers of any property, except on mortgages of real property or mortgage given by way of bills of sale of live stock, goods or personal estate generally, and any transfer, release, reconveyance, or discharge thereof, and any preferable liens or liens on crops.

5. On all deeds of any kind whatever, except custom bonds, bail bonds, bonds to the Crown for the safe custody of an insane person, or bond on appointment of special bailiff.

6. On all grants from the Crown or certificates of title, leases, memorandums of transfers, policies of insurance, bank notes, and all receipts given upon payment of the sum of £2 and upwards.

In addition to the above, a duty is levied on the value of estates of deceased persons, and on settlements of property taking effect after the death of the testator.

### *REVENUE FROM CROWN LANDS.*

Revenue from Crown Lands.

The revenue derived from the Crown lands of the Colony has varied very considerably during the sixteen years shown in the subsequent table, the lowest amount received being in 1871, when the revenue was only £497,978, or, at the rate, of 19s. 7d. per head, while the greatest sum was obtained in 1877, when the receipts amounted to £3,236,277, or at the rate of £5 2s. 11d. per head of the population. The revenue for 1886 amounted to £1,643,954 13s. 7d. grouped under the following heads.

No. 223.—Land Revenue, 1886 :—

| Sales :— | £ | s. | d. |
|---|---|---|---|
| Auction sales | 111,082 | 17 | 0 |
| Improved purchases, &c. | 260,525 | 17 | 3 |
| Deposits on conditional purchases | 112,892 | 9 | 9 |
| Instalments on conditional purchases (inclusive of interest) | 514,161 | 11 | 0 |
| Balances on conditional purchases | 74,504 | 4 | 10 |
| Miscellaneous purchases | 3,292 | 17 | 8 |
| Total, Land sales | £1,076,459 | 17 | 6 |

| | | | |
|---|---|---|---|
| **Interest on land conditionally purchased** | **£129,978** | **4** | **5** |
| **Pastoral occupation :—** | | | |
| **Pastoral leases (runs) 15 years** | **131,893** | **1** | **9** |
| **Conditional leases** | **59,558** | **2** | **5** |
| **Annual leases** | **17,914** | **9** | **4** |
| **Occupation licenses** | **153,493** | **9** | **5** |
| **Homestead leases, 15 years** | **10,659** | **4** | **4** |
| **Quit rents** | **1,401** | **9** | **8** |
| **Total, Pastoral occupation** | **£374,919** | **16** | **11** |
| **Mining occupation :—** | | | |
| **Mineral leases** | **19,049** | **7** | **7** |
| **Mineral licenses** | **1,588** | **0** | **0** |
| **Leases of auriferous lands** | **4,510** | **0** | **10** |
| **Miners' rights** | **4,642** | **5** | **0** |
| **Business licenses** | **1,452** | **15** | **0** |
| **Total, Mining occupation** | **£31,242** | **8** | **5** |
| Miscellaneous land receipts :— | | | |
| Licenses to cut timber, &c. | 8,649 | 16 | 8 |
| Fees on transfer of runs | 619 | 0 | 0 |
| Fees on preparation and enrolment of title-deeds | 4,298 | 10 | 0 |
| All other receipts | 17,786 | 19 | 8 |
| Total, Miscellaneous Land receipts | £31,354 | 6 | 4 |
| Total, Land revenue | £1,643,954 | 13 | 7 |

Falling off in land revenue.

A very great falling off in the land revenue will be observed since 1882. This is due in the first instance to the stoppage of auction sales in 1883, and secondly, to the difficulties encountered in bringing the Crown Lands Act of 1884 into operation. These difficulties have now been overcome, and it is anticipated that a considerable increase in revenue will be obtained.

The total income derived from land since 1871, as well as the amount per head of population, are given below:—

No. 224.—Land Revenue.

| Year. | Amount. | Proportion per head of population. | | | Year. | Amount. | Proportion per head of population. | | |
|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | s. | d. | | £ | £ | s. | d. |
| 1871 | 497,978 | 0 | 19 | 7 | 1879 | 1,632,024 | 2 | 7 | 3 |
| 1872 | 840,453 | 1 | 11 | 11 | 1880 | 1,646,435 | 2 | 5 | 4 |
| 1873 | 1,137,914 | 2 | 1 | 9 | 1881 | 2,820,988 | 3 | 14 | 2 |
| 1874 | 1,426,166 | 2 | 10 | 6 | 1882 | 2,914,394 | 3 | 13 | 4 |
| 1875 | 2,020,629 | 3 | 9 | 2 | 1883 | 1,656,069 | 1 | 19 | 8 |
| 1876 | 2,773,003 | 4 | 11 | 9 | 1884 | 1,753,345 | 1 | 19 | 10 |
| 1877 | 3,236,277 | 5 | 2 | 11 | 1885 | 1,876,452 | 2 | 0 | 6 |
| 1878 | 2,325,711 | 3 | 10 | 8 | 1886 | 1,643,955 | 1 | 13 | 7 |

Revenue derived from sales and occupation of Crown lands

The revenue derived from the Crown lands may be divided into two main classes—receipts from sales, and from pastoral or other occupation. The amount received under each head was as follows:—

No. 225.—Revenue from Sales and Occupation of Crown lands.

| Year. | Sales. | Occupation. | Year. | Sales. | Occupation. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1871 | 262,531 | 235,447 | 1879 | 1,386,687 | 245,337 |
| 1872 | 436,483 | 403,970 | 1880 | 1,382,026 | 264,409 |
| 1873 | 845,410 | 292,504 | 1881 | 2,483,338 | 337,650 |
| 1874 | 1,163,572 | 262,594 | 1882 | 2,455,041 | 459,353 |
| 1875 | 1,760,570 | 260,059 | 1883 | 1,269,480 | 386,589 |
| 1876 | 2,513,404 | 259,599 | 1884 | 1,363,483 | 389,862 |
| 1877 | 2,967,857 | 268,420 | 1885 | 1,314,552 | 562,096 |
| 1878 | 2,076,004 | 249,700 | 1886 | 1,206,438 | 437,516 |

Practice of treating proceeds of sales as revenue.

The practice of treating money derived from the sale of Crown lands as revenue obtains in all the Australian Colonies, and the money so raised forms one of the largest items of their annual income. In New South Wales the sums realized from this source have been in certain years so considerable as to leave a large surplus when all charges upon the public revenue have been defrayed.

The revenue derived from the sale of Crown lands may be subdivided into receipts from (*a*) Auction sales and selections after auction; (*b*) Improvements and other purchases; and (*c*) Conditional sales.

Revenue from Crown lands sold at auction.

Auction sales were to a large extent suspended in 1883, but previously to that year the income derived from this source was very large, as may be seen hereunder.

No. 226.—Proceeds of Sales by Auction and Selections after auction :—

| Year. | Auction sales. | Selections after auction. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| 1871 | 92,994 | 24,530 | 117,524 |
| 1872 | 89,129 | 89,588 | 178,717 |
| 1873 | 300,229 | 104,496 | 404,725 |
| 1874 | 553,973 | 106,042 | 660,015 |
| 1875 | 1,019,053 | 102,440 | 1,121,493 |
| 1876 | 1,561,243 | 98,280 | 1,659,523 |
| 1877 | 1,967,057 | 166,730 | 2,133,787 |
| 1878 | 1,061,670 | 124,197 | 1,185,867 |
| 1879 | 698,981 | 66 | 699,047 |
| 1880 | 435,572 | 42,363 | 477,935 |
| 1881 | 566,404 | 351,885 | 918,289 |
| 1882 | 707,594 | 417,715 | 1,125,309 |
| 1883 | 178,304 | 37,480 | 215,784 |
| 1884 | 95,772 | 767 | 96,539 |
| 1885 | 118,738 | ...... | 118,738 |
| 1886 | 111,083 | ...... | 111,083 |

Large alienations at auction.

It will be observed that the alienation of the public estate by means of auction sales and unconditional selections after auction attained its highest point during the years 1875 to 1878. A temporary lull took place in the two following years, but in 1881 and 1882, the auction sales of Crown lands reached nearly the same proportions as before. It was not until it had become evident that this indiscriminate sale of the public estate was threatening to endanger the true interests of the country that this form of alienation was stopped. In 1883, auction sales were almost completely suspended, the receipts from this source immediately falling from £1,125,309 in 1882 to an average of little over £100,000 in the last three years.

Limitation of auction sales.

The fact had forced itself upon the attention of the authorities that this wholesale alienation of crown lands was not due to the demand created by the normal progress of settlement, but was the outcome of an unhealthy rivalry between the two principal classes of settlers—the pastoral tenants and the free selectors. Besides this, the estate of the country was being parted with, without any conditions as to improvements or settlement, and as the great object of land sales was to aid settlement, it was deemed advisable by the Government to temporarily suspend land sales by auction, and ultimately it was decided to sell only a limited area during any one year.

Improvement and pre-emptive purchases.

Another portion of the land revenue is obtained from the sales, without competition, to the legal occupiers of Crown Lands improved to the value of £1 per acre. To this form of alienation may be added purchases of land made by right of pre-emption on a certain proportion of the total area held under lease in certain cases.

Under the Crown Lands Act of 1861, upon application by the holder of any lease or promise of lease of Crown lands containing improvements made previously to the expiration of such lease, the Governor was empowered to sell such lands to the owners of the improvements, without competition, at a price determined by appraisement, the minimum of which for all description of Crown lands, other than town or suburban lots, was fixed at £1 sterling per acre. In the case of rural lands the area which Crown lessees could purchase in virtue of improvements was originally limited to 320 acres, but under the amended Land Act of 1875 it was increased to 640 acres. No minimum was fixed in the original Act as to the character and value of improvements, in virtue of which such sales might be made, but the amended Land Act of 1875 determined both these points. Only such works as were of a fixed and permanent character, and such as would render the land applied for more useful, were henceforth to be considered as improvements; and their value was fixed at an amount equal to the auction price of the land, and could in no case be less than £1 per acre. The pastoral lessees availed themselves to a very considerable extent of this provision of the Land Act, and by far the greater portion of the revenue received from this source was obtained from them. Under the Land Acts Amendment Act of 1880, a limit was assigned to the aggregate area of such purchases, which was not to surpass one twenty-fifth part of the total area of the run held by the lessee.

Sale of improved lands.

Improvement purchases in goldfields.

The privilege of purchasing, without competition, Crown lands held under lease, in virtue of improvements made by the lessee, did not extend merely to the pastoral tenant of the Crown, but to leaseholders in general, and also to persons in authorized occupation of Crown lands in proclaimed gold-fields. But, in the latter case, the value of improvements to entitle the holder to purchase was fixed at a minimum of £40, and the minimum price of the land thus sold determined at £8 per acre for town lands, and £2 10s. for suburban lands or any other class of land within a proclaimed gold-field.

Lessees were also permitted, under the Crown Lands Act of 1861, to exercise a pre-emptive right of purchase over one portion, and no more of an area not exceeding 640 acres out of each block of

25 square miles they held, at a value to be determined by appraisement, which, however, could not be less that £1 per acre.

Revenue from improvement purchases and pre-emptive sales.

From these sources, (improvement purchases and pre-emptive sales), the following amounts were received into the Colonial Treasury since the year 1877 :—

No. 227.—Revenue from Improvement Purchases and Pre-emptive Sales.

| Year. | Improvement Purchases. | Pre-emptive Right Sales. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| 1877 | 133,358 | 77,263 | 210,621 |
| 1878 | 239,943 | 20,049 | 259,992 |
| 1879 | 156,471 | 4,743 | 161,214 |
| 1880 | 245,094 | 5,799 | 250,893 |
| 1881 | 494,262 | 2,908 | 497,170 |
| 1882 | 179,949 | 1,041 | 180,990 |
| 1883 | 117,561 | 1,345 | 118,906 |
| 1884 | 305,455 | 4,450 | 309,905 |
| 1885 | 408,721 | ............ | 408,721 |
| 1886 | 260,526 | ............ | 260,526 |

Revenue from conditional sales.

Conditional sales formed the main feature of the Land Act of 1861. From 1862, when these sales commenced, to 1886, the nominal area of land sold conditionally amounted to 25,543,710 acres, or equal to 13 per cent. of the total area of the Colony. The total receipts in respect of such land were :—

| | |
|---|---|
| For deposit ........................................ | £6,183,979 |
| Balance of purchase ................................ | 2,791,488 |
| Interest ........................................... | 2,605,658 |
| Total .............................................. | £11,581,125 |

Total receipts from conditional sales.

The following table shows the gross amount received during the ten years ending with 1886, as well as the total since this class of sales was first permitted.

## No. 228.—Revenue from Conditional Sale:—

| Year. | Conditionally Selected. | | For Deposit. | For Balance of Purchase. | | | For Interest. | Gross amount realized. |
|---|---|---|---|---|---|---|---|---|
| | No. of selections. | Area. | | Balance. | Instalments. | Total. | | |
| | | a. r. p. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| 1862 to 1875 | 87,941 | 8,333,657 0 12 | 2,083,414 9 9 | 301,979 16 10 | ........ | 301,979 16 10 | 383,928 14 2 | 2,779,323 0 9 |
| 1876 | 12,654 | 1,984,212 0 0 | 496,053 8 2 | 68,834 1 5 | ........ | 68,834 1 5 | 99,328 14 8 | 664,216 4 3 |
| 1877 | 12,009 | 1,699,816 0 0 | 424,954 0 0 | 71,852 15 6 | ........ | 71,852 15 6 | 126,657 8 9 | 623,404 4 3 |
| 1878 | 12,602 | 1,588,247 3 18 | 398,728 11 1 | 47,060 8 8 | 23,774 16 9 | 70,835 5 5 | 160,581 1 1 | 630,144 17 7 |
| 1879 | 7,540 | 924,136 1 0 | 232,285 2 9 | 37,030 9 7 | 87,131 5 6 | 124,161 15 1 | 171,147 17 11 | 527,594 15 9 |
| 1880 | 8,583 | 1,147,001 2 39 | 293,112 17 7 | 41,849 5 11 | 113,603 1 1 | 155,452 7 0 | 204,634 2 7 | 653,199 7 2 |
| 1881 | 14,220 | 2,329,202 0 15 | 592,965 16 1 | 92,009 1 0 | 129,546 17 1 | 221,555 18 10 | 253,356 14 0 | 1,067,878 8 11 |
| 1882 | 14,607 | 2,302,219 3 0 | 621,617 1 11 | 100,666 12 5 | 129,921 0 7 | 239,587 13 0 | 287,526 13 9 | 1,148,731 8 8 |
| 1883 | 10,725 | 1,621,947 3 12 | 424,068 0 10 | 58,313 10 4 | 137,277 8 9 | 195,590 19 1 | 310,676 6 7 | 931,235 6 6 |
| 1884 | 10,657 | 1,453,937 0 33 | 381,550 4 0 | 61,466 3 5 | 183,080 19 3 | 244,547 2 8 | 326,183 18 9 | 952,281 5 5 |
| 1885 | 5,372 | 1,114,871 3 2 | 121,436 13 11 | 68,138 9 2 | 440,286 8 2 | 508,424 17 4 | 151,657 19 7 | 781,519 10 10 |
| 1886 | 6,061 | 954,560 0 27 | 112,892 9 9 | 74,503 15 10 | 514,162 0 0 | 588,665 15 10 | 120,978 4 5 | 831,536 10 0 |
| Total ........ | 202,971 | 25,543,709 2 38 | 6,183,978 15 10 | 1,032,704 10 10 | 1,758,783 17 2 | 2,791,488 8 0 | 2,605,057 16 8 | 11,581,125 0 1 |

Note.—The actual area at end of 1886 for which deeds were issued was 1,304,066 acres; area in process of alienation, 16,164,190 acres; total, 17,468,256 acres. The remaining area was either voided, lapsed, or forfeited.

Large sums refunded.

The figures in the foregoing table represent the gross amounts paid, but in the case of the deposits large sums were received which were afterwards refunded, as the ground applied for was not open to selection. The area set down as sold conditionally is on this account also somewhat overstated, and, moreover, includes the area of selections which became forfeited for non-fulfilment of conditions, or on other grounds.

The refunds of deposits paid on conditional purchases reach fairly large amounts in some years, as may be seen from the following table.

Amount of Refunds of Deposits on Invalided Conditional Purchases, 1877–86 :—

| Year. | Amount of Refunds. | Year. | Amount of Refunds. |
|---|---|---|---|
| | £ s. d. | | £ s. d. |
| 1877 | 95,412 17 4 | 1882 | 92,804 9 6 |
| 1878 | 80,289 15 5 | 1883 | 131,091 14 9 |
| 1879 | 12,254 17 5 | 1884 | 134,932 9 6 |
| 1880 | 28,256 1 11 | 1885 | 86,868 6 0 |
| 1881 | 72,474 19 8 | 1886 | 69,023 14 8 |

Revenue from pastoral occupation.

Another portion of the annual land revenue of the Colony is derived from rents for pastoral occupation and mineral and other leases. The amount derived from pastoral occupation for each of the ten years 1877–86 is given in detail in the following table. During 1886 the revenue obtained from this source amounted to only £374,920, but it was estimated that more than £500,000 was due at the close of 1886 by occupiers for rents accumulating during the previous eighteen months. By an Act of the Legislature, assented to on the 13th July, 1887, the arrears of rent were made payable over a period of two years, with interest at the rate of 5 per cent.

No. 229.—Annual Revenue from Pastoral Occupation:—

| | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Pastoral leases ......... | 178,681 | 165,765 | 158,776 | 166,278 | 221,149 | 343,333 | 272,959 | 268,155 | 140,940 | 131,893 |
| Annual and special leases ............... | 51,176 | 50,186 | 51,650 | 55,415 | 63,968 | 65,417 | 66,694 | 60,694 | 15,881 | 17,914 |
| Conditional and auction leases...... | ...... | ..... | ...... | ...... | ...... | ...... | ...... | ..... | 37,136 | 59,558 |
| Occupation licenses ... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | 294,686 | 153,493 |
| Homestead leases ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | ...... | 15,768 | 10,660 |
| Quit rents ............... | 249 | 141 | 407 | 931 | 886 | 494 | 477 | 507 | 202 | 1,402 |
| Total, Pastoral occupation | 230,106 | 216,092 | 210,833 | 222,624 | 286,003 | 409,244 | 340,130 | 329,356 | 504,613 | 374,920 |

The revenue derived from mining occupation has not been large, though somewhat brighter since 1884 than previously to that year. The following table gives the revenue under each head for ten years:—

Revenue from Mining Leases.

No. 230.—Revenue from Mining Occupation.

| | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Mineral leases ......... .. ....... | 5,563 | 5,138 | 5,570 | 9,569 | 7,088 | 7,119 | 8,221 | 15,363 | 20,750 | 19,049 |
| Mineral licenses ............... | 390 | 302 | 368 | 1,432 | 1,187 | 1,277 | 1,573 | 2,780 | 2,311 | 1,588 |
| Leases of auriferous lands ... | 2,001 | 2,725 | 3,290 | 2,422 | 4,775 | 5,195 | 2,640 | 4,111 | 2,991 | 4,510 |
| Miners' rights ................. | 2,807 | 2,992 | 4,211 | 6,110 | 6,398 | 5,856 | 4,560 | 4,215 | 4,143 | 4,642 |
| Business licenses ............... | 450 | 465 | 494 | 777 | 835 | 801 | 784 | 1,611 | 1,248 | 1,453 |
| Total, Mining occupation... | 11,211 | 11,622 | 13,933 | 20,310 | 20,283 | 20,248 | 17,778 | 28,080 | 31,443 | 31,242 |

### *REVENUE FROM RAILWAYS AND OTHER SERVICES.*

Revenue from services.

The revenue derived from services rendered now exceeds that from either taxation or land,—the respective proportion under each head for 1886 being :—

| | Per cent. |
|---|---|
| Services | 40·7 |
| Taxation | 34·4 |
| Land | 21·6 |
| Miscellaneous | 3·3 |

Government is owner of railways, &c.

The Government of New South Wales is the owner of all the railways constructed in the Colony, with the exception of 45 miles of road between Moama and Deniliquin. It owns, also, the entire telegraphic and telephonic system of the Colony, as well as the Post Office. From these, and some other minor sources, the revenue, classed under the head of services, was obtained. The total amount received for services during the year 1886, under the different heads, was :—

No. 231.—Revenue from Services during 1886.

| | | | | £ | s. | d. |
|---|---|---|---|---|---|---|
| Railway and tramway receipts | | | | 2,389,138 | 5 | 5 |
| Post Office :— | £ | s. | d. | | | |
| Postage | 330,301 | 12 | 3 | | | |
| Telegraph receipts | 140,954 | 8 | 7 | | | |
| Commission on money orders | 14,961 | 16 | 0 | | | |
| | | | | 486,217 | 16 | 10 |
| Mint receipts | | | | 7,897 | 1 | 7 |
| Fees for escort and conveyance of gold | | | | 880 | 7 | 4 |
| Pilotage, harbour and light rates, and fees | | | | 54,729 | 19 | 5 |
| Registration of brands | | | | 833 | 13 | 5 |
| Public school fees | | | | 63,164 | 10 | 7 |
| Fees of office :— | £ | s. | d. | | | |
| Certificates of naturalization | 145 | 7 | 6 | | | |
| Registrar General | 32,665 | 17 | 0 | | | |
| Prothonotary of Supreme Court | 6,702 | 6 | 2 | | | |
| Master in Equity | 1,727 | 16 | 4 | | | |
| Curator of Intestate Estates | 1,440 | 17 | 1 | | | |
| Insolvent Court | 3,941 | 13 | 5 | | | |
| Sheriff | 1,927 | 7 | 3 | | | |
| District Courts | 8,765 | 16 | 1 | | | |
| Courts of Petty Sessions | 10,860 | 12 | 5 | | | |
| Shipping Masters | 3,460 | 0 | 8 | | | |
| Other fees | 14,735 | 18 | 9 | | | |
| | | | | 86,373 | 12 | 8 |
| Total receipts for Services rendered | | | | £3,089,235 | 7 | 3 |

The revenue derived during each year since 1871 will be found in the following table, and the amount per head in a subsequent one, No. 238.

No. 232.—Revenue from Services, 1871–86 :—

| Year. | Total. | Year. | Total. |
|---|---|---|---|
| | £ | | £ |
| 1871 | 561,679 | 1879 | 1,328,302 |
| 1872 | 659,770 | 1880 | 1,594,082 |
| 1873 | 728,875 | 1881 | 1,945,076 |
| 1874 | 770,895 | 1882 | 2,363,085 |
| 1875 | 858,497 | 1883 | 2,666,731 |
| 1876 | 965,327 | 1884 | 2,942,643 |
| 1877 | 1,119,532 | 1885 | 3,168,463 |
| 1878 | 1,183,582 | 1886 | 3,089,235 |

Rapid increase in revenue from Services.

There was an increase during every year of the above series, 1886 excepted, both in the total amount received and the rate per head. The falling off in 1886 is due to a decline in the amount received from the Railways, which was in that year £103,552 less than in 1885. The gross amount of revenue derived from the railways of the Colony, as also the working expenses, during each year since 1871, will be found below.

No. 233.—Railway Earnings and Expenditure, 1871–86 :—

| Year. | Total Earnings. | Working Expenses. | Year. | Total Earnings. | Working Expenses. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1871 | 355,322 | 197,065 | 1879 | 952,366 | 604,721 |
| 1872 | 424,989 | 207,918 | 1880 | 1,161,017 | 647,719 |
| 1873 | 484,236 | 238,035 | 1881 | 1,444,226 | 738,334 |
| 1874 | 536,575 | 257,703 | 1882 | 1,698,863 | 934,635 |
| 1875 | 614,648 | 296,174 | 1883 | 1,931,464 | 1,177,788 |
| 1876 | 693,225 | 339,406 | 1884 | 2,086,237 | 1,301,259 |
| 1877 | 815,920 | 418,985 | 1885 | 2,174,368 | 1,458,153 |
| 1878 | 902,989 | 536,988 | 1886 | 2,160,070 | 1,492,992 |

Railways revenue and expenditure.

The question of railways and tramways is fully discussed under the head of "Internal Communication," but a passing reference here will not be out of place. The total revenue derived from the railways properly so called amounted in 1886 to £2,160,070, against which sum there was a charge of £1,492,992 for working expenses alone, leaving the net earnings £667,078, a sum less than was received in any year since 1880. The amount of money invested in the railways of the Colony upon lines open for traffic, is £24,079,555, and the net earnings given above represent a return of 2·9 per cent. The return for 1886 was below that of any year since 1871, and in no sense is to be taken as affording an index of the value of the railways of the Colony. The full value of a work cannot be judged until it is completed. The railways are essentially an incomplete work, for each year sees an extension of the lines in operation and a further investment of capital, which the proved resources of the country justify, but the result of which cannot be felt until after the lapse of many years.

**Largest revenue obtained from Railways.**

The largest return for capital invested in railways was obtained in 1881, when the interest amounted to 5·307 per cent., a figure considerably in excess of the rate paid by the Colony for its railway loans.

The revenue derived from the public tramways has increased year by year since the system was introduced in 1879, but the working expenses have also increased, though it is satisfactory to note that the expenses apparently reached a maximum in 1884, and the amount available towards the payment of interest has largely increased since that year. The earnings of the Tramways, as well as the expenditure in connection therewith, are shown in the following table :—

No. 234.—Tramways : Earnings and Expenditure—1879–86.

| Year. | Total Length of Lines in Miles. | Capital Expended on Lines open for Traffic. | Capital Expended on Extensions not opened. | Total Capital Expended. | Total Earnings. | Expenditure for Working Expenses. | Net Earnings over Working Expenses. |
|---|---|---|---|---|---|---|---|
| | | £ | £ | £ | £ | £ | £ |
| 1879 | 1½ | 22,061 | ...... | 22,061 | 4,416 | 2,278 | 2,138 |
| 1880 | 4½ | 60,218 | 1,683 | 61,901 | 18,980 | 13,444 | 5,536 |
| 1881 | 11¼ | 181,659 | 38,659 | 220,318 | 62,549 | 52,107 | 10,442 |
| 1882 | 29½ | 447,939 | 10,206 | 458,145 | 128,354 | 120,181 | 8,173 |
| 1883 | 32½ | 579,439 | 104,686 | 648,125 | 193,929 | 183,218 | 10,711 |
| 1884 | 35 | 683,179 | 106,320 | 789,499 | 223,453 | 215,085 | 8,368 |
| 1885 | 35 | 748,506 | 142,217 | 890,723 | 227,144 | 207,898 | 19,246 |
| 1886 | 36½ | 854,260 | 131,342 | 985,602 | 234,142 | 208,687 | 25,456 |

Revenue from Posts and Telegraphs.

The receipts from the Post and Telegraph services of the Colony have increased substantially year by year, but so also has the expenditure. Although the sum of £486,218 was obtained during 1886 from this source, the expenditure amounted to £610,651, showing a loss on the year's transaction of £124,433, in addition to the amount of interest payable on the debt incurred for these works. Though both the Post and Telegraphic services are carried on as far as practicable on commercial principles, a deficiency is experienced every year. The reason of the deficit is found in the desire of the Government to extend the facilities of both the post and telegraph to every part of the Colony. And so important has this policy appeared, that it has been carried out with considerable loss, as will be seen from the table given below. It is quite possible that the principle of affording the benefit of postal and telegraphic communication to every district of New South Wales would be adhered to even if the system ultimately failed to become self-supporting; but the time cannot be far distant when the revenue derived will more than meet the expenses.

No. 235.—Electric Telegraph and Post Offices—Revenue and Expenditure :—

| Year. | Revenue. | Expenditure. | Year. | Revenue. | Expenditure. |
|---|---|---|---|---|---|
| | £ | £ | | £ | £ |
| 1877 | 224,449 | 312,226 | 1882 | 358,525 | 446,658 |
| 1878 | 226,405 | 352,157 | 1883 | 403,794 | 504,055 |
| 1879 | 259,170 | 383,391 | 1884 | 442,964 | 542,182 |
| 1880 | 286,134 | 396,301 | 1885 | 472,564 | 570,999 |
| 1881 | 330,414 | 421,594 | 1886 | 486,218 | 610,651 |

Miscellaneous receipts from Services.

The miscellaneous receipts under the head of Services comprise fees of office, which amounted to £86,374, in 1886. Public school fees, £63,165; pilotage and harbour fees, £54,730; mint

**and escort receipts, £8,777; and registration of brands, £834; the total being £213,880. The revenue derived from the services above mentioned are merely nominal, as the cost and value of the service performed in each case far exceed the revenue. The amount received during each year, from 1871 to 1886, was :—**

No. 236.—Receipts on account of Miscellaneous Services.

| Year. | Amount. | Year. | Amount. |
|---|---|---|---|
| | £ | | £ |
| 1871 | 81,534 | 1879 | 92,234 |
| 1872 | 88,929 | 1880 | 118,384 |
| 1873 | 86,803 | 1881 | 154,978 |
| 1874 | 88,334 | 1882 | 176,466 |
| 1875 | 95,825 | 1883 | 181,809 |
| 1876 | 96,053 | 1884 | 197,666 |
| 1877 | 95,136 | 1885 | 203,209 |
| 1878 | 96,892 | 1886 | 213,880 |

Miscellaneous tems of revenue

The revenue derived from other sources besides "Taxation," "Lands," and "Services," only amounted to a quarter of a million sterling in 1886. The amount was made up chiefly by rent, fines, and forfeitures, and a variety of miscellaneous receipts, as will be seen hereunder.

No. 237.—Miscellaneous Receipts during 1886 :—

| | |
|---|---|
| Rents—Exclusive of land :— | £ |
| Tolls and ferries | 6,793 |
| Wharves | 35,191 |
| Government buildings and premises | 8,521 |
| Total, Rents exclusive of land | £50,505 |

| | £ |
|---|---|
| Fines and forfeitures :— | |
| Sheriff | 396 |
| Courts of Petty Sessions | 18,242 |
| Crown's share of seizures, &c. | 780 |
| Consficated and unclaimed property | 148 |
| Other Fines | 605 |
| Total, Fines and forfeitures | £20,171 |
| Unclassified receipts :— | |
| Amount transferred from the Public Instruction Endowment Account, under the 6th clause of the Act 44 Vic. No. 19, in aid of the Public Schools of the Colony | 11,624 |
| Sale of Government property | 5,862 |
| Support of patients in Lunatic Asylums | 9,122 |
| Collection by Government Printer | 5,457 |
| Store rent and carriage of gunpowder | 11,515 |
| Work performed by prisoners in gaol | 4,721 |
| Fees on presenting Private Bills to Parliament and on Letters of Registration | 5,711 |
| Interest on bank deposits | 17,074 |
| Glebe Island Abattoir receipts | 8,037 |
| Fitzroy Dry Dock receipts | 1,856 |
| Assessment on sugar refinery | 1,500 |
| Receipts under Fisheries Act | 7,016 |
| Chinese Restriction Act | 12,850 |
| Other receipts | 76,254 |
| Total, Unclassified receipts | £178,599 |
| Total, General Miscellaneous receipts | £249,275 |

Revenue per head of the population.

The total revenue of the Colony amounted in 1886 to £7 15s. per head, which, though nominally, a very large sum, compared with the revenue of other countries, falls short of the highest amount received in any year, viz., £9 6s. 8d., in 1882, by £1 11s. 8d. Under the present system of taxation it is anticipated that the revenue will average about £8 per head; and though an increase may be expected in the gross amount obtained under each branch of revenue, it is scarcely probable that the amount received per head will advance beyond the rate of 1887, especially as the increase in land revenue will not be proportionate to the increase in population.

Subdivision of revenue receipts.

The amounts received per head under each subdivision during each year since 1871 were :—

No. 238.—Revenue per Head from Various Sources.

| Year. | Taxation. | | | Land Revenue. | | | Services. | | | Miscellaneous. | | | Total Receipts. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. |
| 1871 | 2 | 1 | 10 | 0 | 19 | 7 | 1 | 2 | 1 | 0 | 4 | 7 | 4 | 8 | 1 |
| 1872 | 2 | 5 | 7 | 1 | 11 | 11 | 1 | 5 | 1 | 0 | 4 | 2 | 5 | 6 | 9 |
| 1873 | 2 | 10 | 2 | 2 | 1 | 9 | 1 | 6 | 9 | 0 | 3 | 8 | 6 | 2 | 4 |
| 1874 | 2 | 2 | 6 | 2 | 10 | 6 | 1 | 7 | 4 | 0 | 4 | 2 | 6 | 4 | 6 |
| 1875 | 1 | 18 | 5 | 3 | 9 | 2 | 1 | 9 | 4 | 0 | 4 | 3 | 7 | 1 | 2 |
| 1876 | 1 | 18 | 5 | 4 | 11 | 9 | 1 | 11 | 11 | 0 | 4 | 7 | 8 | 6 | 8 |
| 1877 | 1 | 19 | 3 | 5 | 2 | 11 | 1 | 15 | 7 | 0 | 5 | 2 | 9 | 2 | 11 |
| 1878 | 1 | 19 | 10 | 3 | 10 | 8 | 1 | 16 | 0 | 0 | 5 | 3 | 7 | 11 | 9 |
| 1879 | 1 | 16 | 10 | 2 | 7 | 3 | 1 | 18 | 6 | 0 | 7 | 2 | 6 | 9 | 9 |
| 1880 | 1 | 19 | 1 | 2 | 5 | 4 | 2 | 3 | 11 | 0 | 7 | 1 | 6 | 15 | 5 |
| 1881 | 2 | 6 | 7 | 3 | 14 | 2 | 2 | 11 | 2 | 0 | 4 | 8 | 8 | 16 | 7 |
| 1882 | 2 | 7 | 11 | 3 | 13 | 4 | 2 | 19 | 5 | 0 | 6 | 0 | 9 | 6 | 8 |
| 1883 | 2 | 5 | 4 | 1 | 19 | 8 | 3 | 3 | 11 | 0 | 6 | 2 | 7 | 15 | 1 |
| 1884 | 2 | 8 | 10 | 1 | 19 | 10 | 3 | 6 | 10 | 0 | 6 | 1 | 8 | 1 | 7 |
| 1885 | 2 | 8 | 4 | 2 | 0 | 6 | 3 | 8 | 0 | 0 | 6 | 2 | 8 | 3 | 0 |
| 1886 | 2 | 13 | 4 | 1 | 13 | 7 | 3 | 3 | 0 | 0 | 5 | 1 | 7 | 15 | 0 |

## *PUBLIC EXPENDITURE.*

Expenditure per head of the population, 1886.

The expenditure of the Colony exclusive of loans during the ten years which closed with 1886, amounted on an average to £8 7s. 6d. per head—the amount for the last four years considerably exceeding this average. During 1886, the gross expenditure amounted to £9,078,869, of which sum £7,167,689 was expended on account of services rightly chargeable to the year itself, whilst the balance, amounting to £1,911,180, was for the service of 1885 and previous years.

**Expenditure in 1877 and 1886 compared.**

The expenditure has been grouped under seven heads, as shown below, with the object of comparing the present expenditure with that of ten years ago. The proportion falling under each head of service during the years 1877 and 1886 respectively, was :—

No. 239.—Per Centage of Expenditure under Various Heads during 1877 and 1886.

| Service. | 1877. | 1886. |
|---|---|---|
| | per cent. | per cent. |
| Railways and Tramways | 10·08 | 18·84 |
| Post and Telegraphs | 6·93 | 6·73 |
| Other public works | 17·91 | 13·76 |
| Public debt charge | 13·15 | 17·40 |
| Immigration | 1·54 | 0·39 |
| Public Instruction | 6·17 | 8·16 |
| Other services | 44·22 | 34·72 |

**Increase in expenditure to what traceable.**

The most notable increase observable is in the proportion of total revenue expended on railway and tramway service. The increase in the proportion expended on education is also remarkable, while the payments on account of the Public Debt have advanced from 13·15 to 17·40 per cent., which is less serious than at first sight appears, as a large part of the debt charges are recouped by the earnings of works constructed out of the loan funds. The absolute amount expended during each of the past ten years was :—

No. 240.—Public Expenditure, exclusive of Expenditure from Loans, during each year from 1877 to 1886.

| Year. | Railways and Tramways. | Post and Telegraphs. | Other Public Works. | Interest on Debt and Extinction of Loan. | Immigration. | Public Instruction. | Other Services. | Total Expenditure. |
|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ |
| 1877 | 453,598 | 312,226 | 806,325 | 591,744 | 69,332 | 277,666 | 1,990,319 | 4,501,210 |
| 1878 | 698,446 | 352,157 | 1,058,762 | 587,552 | 95,122 | 383,711 | 1,902,631 | 5,078,381 |
| 1879 | 809,245 | 383,391 | 1,314,819 | 584,339 | 82,123 | 387,786 | 2,183,806 | 5,745,509 |
| 1880 | 838,559 | 396,301 | 1,224,521 | 715,904 | 43,522 | 385,567 | 1,898,296 | 5,502,760 |
| 1881 | 786,269 | 421,594 | 1,129,671 | 710,752 | 45,966 | 552,363 | 2,123,327 | 5,788,942 |
| 1882 | 1,031,720 | 446,658 | 1,132,041 | 969,198 | 46,301 | 665,901 | 2,063,791 | 6,355,610 |
| 1883 | 1,439,327 | 504,055 | 1,262,806 | 927,905 | 112,319 | 879,120 | 2,665,556 | 7,791,088 |
| 1884 | 1,585,603 | 542,182 | 1,494,983 | 1,047,322 | 120,038 | 817,767 | 2,806,465 | 8,414,360 |
| 1885 | 1,729,894 | 570,999 | 1,323,991 | 1,300,184 | 52,050 | 751,335 | 2,838,035 | 8,566,488 |
| 1886 | 1,710,495 | 610,651 | 1,248,877 | 1,579,689 | 35,397 | 741,121 | 3,152,639 | 9,078,869 |

Increase of public expenditure.

In a country advancing so rapidly in population as New South Wales, the value of figures, such as are given in the above table, is apt to be misunderstood, for, though the absolute increase in public expenditure during the ten years amounts to 102 per cent., the population has increased 56 per cent. Nor must the fact be overlooked that much of what is now expended out of current revenue is for the advantage of future years, and for the development of the resources of the country; and that the expenditure on certain services is incurred in order to obtain additional revenue. But even when such allowance is made, it will be found there has been no slight advance, especially since 1882, as will be seen from the table here given of the expenditure per head, under the several groups.

No. 241.—Public Expenditure per Head, exclusive of Expenditure from Loans, during each year from 1877 to 1886:—

| Year. | Railways and Tramways. | | | Post and Telegraphs. | | | Other Public Works. | | | Interest on Debt, &c. | | | Immigration. | | | Public Instruction. | | | Other Services. | | | Total Expenditure. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. |
| 1877 | 0 | 14 | 5 | 0 | 9 | 11 | 1 | 5 | 8 | 0 | 18 | 10 | 0 | 2 | 2 | 0 | 8 | 10 | 3 | 3 | 3 | 7 | 3 | 1 |
| 1878 | 1 | 1 | 3 | 0 | 10 | 8 | 1 | 12 | 2 | 0 | 17 | 10 | 0 | 2 | 11 | 0 | 11 | 8 | 2 | 17 | 10 | 7 | 14 | 4 |
| 1879 | 1 | 3 | 5 | 0 | 11 | 1 | 1 | 18 | 1 | 0 | 16 | 11 | 0 | 2 | 4 | 0 | 11 | 2 | 3 | 3 | 2 | 8 | 6 | 2 |
| 1880 | 1 | 3 | 1 | 0 | 10 | 11 | 1 | 13 | 9 | 0 | 19 | 9 | 0 | 1 | 2 | 0 | 10 | 7 | 2 | 12 | 4 | 7 | 11 | 7 |
| 1881 | 1 | 0 | 8 | 0 | 11 | 1 | 1 | 10 | 0 | 0 | 18 | 11 | 0 | 1 | 3 | 0 | 14 | 6 | 2 | 15 | 10 | 7 | 12 | 3 |
| 1882 | 1 | 5 | 11 | 0 | 11 | 3 | 1 | 8 | 6 | 1 | 4 | 5 | 0 | 1 | 2 | 0 | 16 | 9 | 2 | 11 | 11 | 7 | 19 | 11 |
| 1883 | 1 | 14 | 6 | 0 | 12 | 1 | 1 | 10 | 3 | 1 | 2 | 3 | 0 | 2 | 8 | 1 | 1 | 1 | 3 | 3 | 11 | 9 | 6 | 9 |
| 1884 | 1 | 16 | 0 | 0 | 12 | 4 | 1 | 13 | 11 | 1 | 3 | 9 | 0 | 2 | 9 | 0 | 18 | 7 | 3 | 3 | 9 | 9 | 11 | 1 |
| 1885 | 1 | 17 | 2 | 0 | 12 | 3 | 1 | 8 | 5 | 1 | 7 | 11 | 0 | 1 | 1 | 0 | 16 | 2 | 3 | 1 | 0 | 9 | 4 | 0 |
| 1886 | 1 | 14 | 11 | 0 | 12 | 5 | 1 | 5 | 6 | 1 | 12 | 3 | 0 | 0 | 9 | 0 | 15 | 1 | 3 | 4 | 4 | 9 | 5 | 3 |

Increase of expenditure on railways and tramways.

The expenditure on account of railways and tramways shows the largest increase during the period comprised in this table, amounting to £1 0s. 6d. per head. The expense of the Public Debt has advanced 13s. 5d.; Public Instruction, 6s. 3d.; Post and Telegraphs, 2s. 6d.

The length of railway line in operation in 1877 was only 598 miles, while in 1886 the mileage had increased to 1,889½, involving a proportionately large outlay for maintenance and working expenses, but, at the same time, bringing in revenue, which advanced much more rapidly than the expenditure. The tramway system, too, was inaugurated in 1879, and involved an expenditure of about 4s. 6d. per head in 1886, for which there was, of course, no corresponding expenditure in 1877.

Increase of expenditure on education.

The expenditure per head on account of Public Instruction, though considerably larger in 1886 than ten years previously, was 6s. less than in 1883. The Public Instruction Act of 1880, abolishing, as it did, state aid to denominational education, necessarily involved an increased expenditure from Public Revenue to supply the place of schools closed under the Act. The greatest activity was, therefore, displayed, especially during the year 1883, immediately following the closing of the denominational schools, both in the building and equipment of public schools, hence the increased expenditure per head noticeable in the table given above. Since 1883, the expenditure rapidly declined, and has now almost reached the normal average.

Expenditure upon Post and Telegraph.

The increase in the expenditure for 1886 over 1877 upon Post and Telegraphs represents really an advance in the average business transacted by each member of the community, and is accompanied by a corresponding increase in the receipts from this service.

Expenditure for public works.

The expenditure upon Public Works during 1886 was about the same per head as in 1877, though considerably less than in most of the intervening years. The large surplus which the

Government had at its disposal during the period immediately following 1877, enabled a profuse expenditure on public works, which, under other circumstances, might not have been undertaken; hence the large increase during the years in which the surplus was available. The absence of an Act placing the responsibility of local works upon the persons actually concerned has necessitated the expenditure, out of the public funds, of large sums upon works only locally important, and, therefore, not strictly chargeable to the public revenue. The Local Government Bill now before Parliament proposes to remedy this state of things, and a decrease in the expenditure upon public works may be anticipated.

**Expenditure for other services.**

Under the head of "Other Services" are included "Civil Administration," "Defence," "Administration of Lands," "Mining," and "Law." The expenditure per head has been fairly uniform from year to year, though that for 1886 was slightly in excess of any year since 1877.

**Accumulated surplus revenue.**

During the fourteen years which elapsed from 1872 to 1885, New South Wales presented the spectacle almost unique in these colonies of a government with a large surplus of revenue at its disposal. The amount standing to the credit of the Consolidated Fund at the close of each year from 1872 to 1885, was :—

No. 242.—Accumulated Surplus at the close of Each Year.

| Year. | Amount. | Year. | Amount. |
|---|---|---|---|
| | £ | | £ |
| 1872 | 132,238 | 1879 | 1,341,619 |
| 1873 | 925,069 | 1880 | 1,440,228 |
| 1874 | 825,605 | 1881 | 2,927,435 |
| 1875 | 1,110,992 | 1882 | 3,888,753 |
| 1876 | 1,945,807 | 1883 | 2,511,016 |
| 1877 | 2,351.074 | 1884 | 1,229,338 |
| 1878 | 1,922,784 | 1885 | 2,900 |

Advances made from surplus.

The figures given above represent the amounts actually at the credit of the current account of the Consolidated Revenue. The actual surplus differed somewhat from these amounts, by reason of temporary advances made to loan or other funds out of accumulated surplus. The gross credit balance at the close of 1878 was £3,872,784. The years 1881 and 1882 also yielded surpluses to the extent of £1,441,338 and £1,086,308 in each year as named, making a total surplus of £6,400,430. For the services of 1878 and previous years, the sum of £1,377,321 was expended, while in 1879, 1880, 1883, and 1884 the income was exceeded by £1,306,267, thus reducing the surplus to £3,716,932, at the close of 1884. Specific appropriations were made by Parliament out of this sum to the extent of £3,419,174 and £119,993 was written off; thus leaving a balance retained for expenditure at the close of 1884 of £177,776, the difference between the amount just stated and that shown in table No. 242 having been temporarily advanced to revenue from various sources.

Proposals for meeting deficit.

The state of things depicted above was entirely changed during 1886. The disbursements from 1883 to 1886 were nominally more than the income, chiefly through the large appropriations of the surpluses of former years. Thus the year 1885 closed with a sum of £2,900 to the credit of the Revenue Fund, while 1887 opened with a nominal deficit of £1,286,581 though the actual amount was £2,540,000. The proposals of the Treasurer for the wiping out of the deficit were forshadowed in a statement made on the 30th March, 1887, and it was determined that the deficit should be treated as a matter quite distinct from the ordinary finances of the year. The return of prosperity, which appears to have set in, bids fair to enable the expectations of the Treasurer to be realized and equilibrium again restored to the finances of the country.

## *LOANS.*

**First loan issued in 1841.**

On the 28th December, 1841, a loan of £49,500 was issued for the purposes of immigration, having a currency of two years, and bearing interest at the rate of 5¼d. per day for each £100, or at the rate of 8 per cent. per annum. Loans for similar purposes were raised during the years 1843–6, but were met out of revenue, within a few years of the date of raising. In 1851, however, a sum of £79,600 was borrowed, also for immigration purposes, part only of which was paid out of the general revenue, the remainder being met by a fresh loan; and though no loans raised prior to 1853 remain outstanding, the loan of 1851 must be taken as the actual commencement of the Public Debt of New South Wales. From 1853 to the close of 1886, the total sum authorized to be raised by loan was £54,016,960, and the amount of debentures and inscribed stock issued and sold was £43,628,019. The gross sum realized by the floating of the various loans was £41,969,542. Securities were however redeemed absolutely to the extent of £2,593,770. Thus, at the close of 1886, the total of loans outstanding was £41,034,249. The purpose for which the loans were raised, as well as the proportions chargeable to each service, and the annual interest, are shown in the following table :—

**Growth of the Public Debt.**

| Services. | Principal. | Interest. |
|---|---|---|
| | £ | £ |
| Railways and Tramways | 33,602,345 | 1,335,619 |
| Electric Telegraphs | 679,173 | 29,942 |
| Harbours and Rivers Navigation | 2,465,605 | 99,459 |
| Roads and Bridges | 586,531 | 26,428 |
| Immigration | 387,663 | 18,863 |
| City of Sydney Sewerage | 592,123 | 24,217 |
| Do do Water Supply | 1,057,674 | 43,773 |
| Miscellaneous Public Works, including expenditure for Water Supply and other services the amounts of which have not yet been allotted | 1,663,134 | 66,879 |
| Total | 41,034,249 | 1,645,180 |

Present amount of Public Debt.

The present amount of the public debt is undoubtedly large; but as no portion of it is due to war charges, and very little to works of an entirely unproductive character, the burden on the resources of the country is more apparent than real. The assets of the Colony amount to considerably more than four times the liabilities, and for the most part comprise securities which could readily be converted into money. At a moderate computation, the public resources of New South Wales may be set down at £170,000,000, made up of the following leading items:—

Estimated value of the public resources.

| | |
|---|---|
| Unalienated lands and balance on lands sold conditionally | £114,500,000 |
| Railways, Tramways, Public Works, &c. | 55,500,000 |
| Total | £170,000,000 |

Expenditure incurred on reproductive works.

The bulk of the expenditure shown in the above statement has been incurred on directly reproductive works, yielding or capable of yielding revenue, towards meeting the charge for interest. The other works, not directly productive, have been undertaken for the development of the resources of the Colony, and for facilitating settlement. The net revenue from the public works of the country is almost entirely comprised in that derived from railways, as some of the most important works, such as the water supply and sewerage of the metropolis have not yet been finished, and, consequently, do not bring in any appreciable income. When, however, these undertakings are completed, and the railways of the Colony in full operation, the sum available to meet interest and other charges will leave little to be made good from the general revenue of the Colony.

Revenue from reproductive works.

Expenditure from loans and public debt 1877-1886.

The following statement shows the amount of loans authorized by Parliament for public purposes, the amount raised, the expenditure during each year, and the interest paid, as well as the rates per head of population.

No. 243.—Expenditure from Loans and Interest paid from 1877 to 1886, with total Sum authorized to be raised, and Public Debt at the close of each year:—

| Year. | Total expenditure from Loans at the close of each year. | | Expenditure from Loans during each year. | | Expenditure on account of interest during the year. | | † Total loans authorized. | Public debt at close of each year. | |
|---|---|---|---|---|---|---|---|---|---|
| | * Amount. | Per head total population. | Amount. | Per head mean population. | Amount. | Per head mean population. | | Amount. | Per head total population. |
| | £ | £ s. d. | £ | £ s. d. | £ | £ s. d. | £ | £ | £ s. d. |
| 1877 | 14,349,506 | 22 5 10 | 995,454 | 1 11 8 | 517,359 | 0 16 5 | 15,734,396 | 11,724,419 | 18 4 3 |
| 1878 | 15,165,823 | 22 11 5 | 816,317 | 1 4 10 | 517,377 | 0 15 9 | 15,697,996 | 11,688,119 | 17 7 11 |
| 1879 | 16,437,528 | 23 3 4 | 1,271,705 | 1 16 10 | 526,249 | 0 14 11 | 23,022,864 | 14,937,419 | 21 1 1 |
| 1880 | 18,106,147 | 24 8 1 | 1,668,619 | 2 6 0 | 647,294 | 0 17 10 | 24,251,364 | 14,903,919 | 20 1 9 |
| 1881 | 20,503,515 | 26 6 7 | 2,397,368 | 3 3 1 | 647,642 | 0 17 0 | 33,024,764 | 16,924,019 | 21 14 8 |
| 1882 | 23,336,274 | 28 15 7 | 2,832,759 | 3 11 3 | 727,988 | 0 18 4 | 32,821,964 | 18,721,219 | 23 1 9 |
| 1883 | 26,601,985 | 31 0 3 | 3,265,711 | 3 18 3 | 798,620 | 0 19 2 | 34,728,204 | 24,632,459 | 28 14 4 |
| 1884 | 30,276,692 | 33 9 10 | 3,674,707 | 4 3 5 | 977,899 | 1 2 2 | 48,375,507 | 30,101,959 | 33 6 0 |
| 1885 | 34,172,837 | 35 13 6 | 3,896,145 | 4 3 8 | 1,230,441 | 1 6 5 | 48,337,807 | 35,564,259 | 37 2 6 |
| 1886 | 37,939,193 | 37 17 3 | 3,766,356 | 3 16 10 | 1,519,436 | 1 11 0 | 51,423,190 | 41,034,249 | 40 19 1 |

* When the figures in this column exceed the amount of loans raised, advances have been made to loan funds from consolidated revenue or other funds. † Total authorized, less amounts paid off.

Increase of the Public Debt.

It will be seen that the amount authorized to be raised by loan at the close of 1886 was £51,423,190; of this sum £41,034,249 has already been received, leaving a balance of £10,388,941 yet to be negotiated. The net increase in the Public Debt during the nine years, which ended with 1886, was £29,309,830, involving an increase in the annual charge for interest of £1,002,077. During the same period the indebtedness per head advanced from £18 4s. 3d. to £40 19s. 1d., and the charge per head for interest from 16s. 5d. in 1877, to £1 11s., in 1886.

Advances from surplus revenue.

Owing to the large surplus revenue available during the greater part of the period embraced in the table given above, the amount of public debt was less than the sum actually expended on account of loans, as advances were made in anticipation of loans authorized to be floated in the London market. The advances in some years reached considerable sums. This was noticeable in 1882, when the total of such advances, being the difference between the amount expended and that raised, was not less than £4,615,055. In 1885, however, the balance of surplus revenue available for advances disappeared, and the loans raised have, therefore, since that year exceeded the expenditure chargeable to loan votes, as will be seen by the statement given above, the unexpended balance in hand at the close of 1886 being £3,095,056.

Increase of the Public Debt greater than that of population.

Taking the expenditure from loan votes, as a measure of the increase of the Colony's indebtedness, it will be seen that during the years 1877–86 the total expenditure increased more than 170 per cent., a rate of growth much more rapid than that of the population—the expenditure per head in 1877 amounting to £22 5s. 10d., while nine years later it had advanced to £37 17s. 3d., a rate of increase averaging £1 14s. 7d. per annum. In few countries of the world would this rate of increase be justifiable, but in New South Wales, whose immense resources are still in a state of partial development, the expenditure gives cause for no uneasiness to the creditors of the Colony. The total expenditure in the ten years amounted to £24,585,141, of which

£19,762,360 was for railways, £273,687 for telegraphs, and £2,706,026 for water and sewerage, the remaining expenditure, amounting to £1,843,068, was incurred mainly for works and buildings necessary for the development of the resources of the Colony or incidental to its progress.

Cost of Public Works charged to general revenue.

It has been a practice of long standing to charge the cost of constructing public works, other than those of national importance or built equally for the requirements of the future as of to-day, to the general revenue of the Colony. This practice is rarely departed from, and the amount of loans spent on works which do not come within such definition, is comparatively trifling. The subsequent table gives the amount of the Public Debt at the close of each year since 1869. It will be seen that the increase for the first ten years in the indebtedness was very small, averaging less than £240,000 per annum; hence it is that, when in the latter years, much greater activity was manifest in the construction of public works, the increase was at the rate of nearly £3,670,000 per annum, though the mean yearly increase spread over the whole period of eighteen years was only £1,750,000.

Public Debt 1869-86.

No. 244.—Public Debt, 1869-86:—

| Year. | Amount. | Year. | Amount. |
|---|---|---|---|
| | £ | | £ |
| 1869 | 9,546,030 | 1878 | 11,688,119 |
| 1870 | 9,681,130 | 1879 | 14,937,419 |
| 1871 | 10,614,330 | 1880 | 14,903,919 |
| 1872 | 10,773,230 | 1881 | 16,924,019 |
| 1873 | 10,842,415 | 1882 | 18,721,219 |
| 1874 | 10,516,371 | 1883 | 24,632,459 |
| 1875 | 11,470,637 | 1884 | 30,101,959 |
| 1876 | 11,759,519 | 1885 | 35,564,259 |
| 1877 | 11,724,419 | 1886 | 41,034,249 |

Interest on public debt.

The nominal rate of interest paid on the loans of the Colony was 5 per cent. until 1873, when the rate was lowered to 4 per cent. The highest price received for a 5 per cent. loan was £103 18s. 1¾d. for the loan of 1872, with a currency of thirty years, the net amount of interest payable by the Colony on this loan, allowing for the premium, being £4 15s. 2d per cent. In 1873 the interest for new loans was fixed at 4 per cent., and the highest price obtained for loans at this rate was that received for the £2,000,000 loan of July, 1882, which sold at an average of £102 2s. 11½d., the net proceeds being £101 11s. 2d. per cent., and the net interest payable, after allowing for the premium, £3 18s. 3d. per cent. On 1st October, 1884, the interest was fixed at 3½ per cent., at which rate three loans of five and a half millions each have been raised, the highest price obtained being for that floated in July, 1886. This loan has a currency of 40 years, and realized an average rate of £95 8s. 3d. per cent. or net £93 15s. 3d. after all charges have been defrayed. The interest payable on this loan allowing for its being floated at a discount is £3 14s. 8d. per cent., which cannot be looked upon as unsatisfactory. The loan is now quoted at £98 10s. 0d., or £1 13s. 9d. above its original selling price, allowing for accumulated interest.

Improved credit of New South Wales in the London market.

It will be seen that there has been a steady improvement in the credit of New South Wales in the London money markets which its vast resources undoubtedly warrant. New South Wales is now in a position to borrow at less than 3¾ per cent., but even this rate is higher than the financial position of the Colony would warrant; and the day is not far distant when 3½ per cent. loans will be taken up at par.

New South Wales' loans compared with those of other colonies.

The position of New South Wales in regard to its loans stands as high as that of any other colony of the group as will be seen from the following statement of the last loans raised by the various colonies of Australasia during the year 1886.

No. 245.—Particulars of Australasian Loans offered in London during 1886 :—

| Colony. | When offered. | Amount issued. | Official minimum. | Average price obtained. | Interest. | |
|---|---|---|---|---|---|---|
| | | | | | Nominal. | Actual. |
| | | £ | | £ s. d. | | |
| New South Wales | July... | 5,500,000 | 94 | 95 8 3 | 3½ | 3·67 |
| Victoria ............ | Jan.... | 1,500,000 | 102 | 106 9 0 | 4 | 3·76 |
| Queensland ......... | March | 1,500,000 | 103 | 105 7 9 | 4 | 3·80 |
| South Australia .... | April | 1,332,400 | 99 | 99 9 6 | 4 | 4·02 |
| New Zealand ...... | Oct..... | 1,567,800 | 97 | 97 0 0 | 4 | 4·12 |
| Tasmania ............ | July... | 1,000,000 | 99 | 99 17 11 | 4 | 4·00 |

In the case of New South Wales, the interest payable will be slightly in excess of that shown in the table, as the loan was floated below par. The interest paid by Victoria and Queensland would, on the other hand, be slightly less, as the loans of these colonies will be repaid at par. Nevertheless the respective positions of the colonies in the money markets of the world will practically be that given in the above table. As far as New South Wales is concerned this is especially gratifying when it is borne in mind that the Colony was compelled to go to the London market thrice within two years with separate loans of £5,500,000 each.

The old method of raising Loans was superseded by the Inscribed Stock Act of 1883. Under the Act in question, the

Inscribed Stock Act of 1883.

loans of the Colony are negotiated by the Bank of England; and the expenses of the last three loans are shown in the accompanying table:—

No. 246.—Sales of Inscribed Stock negotiated in London by the Bank of England.

| Amount of principal. | Currency, in years. | Date from which interest accrued. | Gross proceeds. | Average rate per cent. at which sold. | | | Charges. | | | | | | Net proceeds. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Brokers' commission. | Bank commission. | Discount on balance of scrip paid up in full. | Stamp duty. | Petty expenses. | Total. | |
| £ | | | £ | £ | s. | d. | £ | £ | £ | £ | £ | £ | £ |
| 5,500,000 | 40 | Oct. 1884 | 5,152,386 | 93 | 13 | 7 | 13,730 | 27,500 | 9,573 | 34,375 | 559 | 85,737 | 5,066,649 |
| 5,500,000 | 40 | Oct. 1885 | 5,042,041 | 91 | 13 | 5 | 13,656 | 27,500 | 18,391 | 34,375 | 780 | 94,702 | 4,947,339 |
| 5,500,000 | 40 | July 1886 | 5,247,692 | 93 | 15 | 3 | .... | .... | .... | 34,375 | .... | 90,799 | 5,156,893 |

The charges incidental to the loan amounted to 1·56, 1·72, and 1·65 per cent. respectively upon the capital value, but on the gross amount raised the per-centage for each loan was 1·69, 1·91, and 1·76.

Relation between loans and imports and exports.

The loans raised in England do not come to the Colony as coin, but as merchandise, and from the greater portion of the excess of the imports over the exports, which is so marked a feature in the trade of these colonies. The following table shows the trade of the Colony for eighteen years, and the increase in the amount of the public debt during each year. Making allowance for the imperfection of the trade returns, it is evident how close the connection is between the loan expenditure and the excess, or otherwise, of the imports.

No. 247.—Imports, Exports, and Expenditure from Loans:—

| Year. | Imports. | Exports. | Excess of of imports. | Excess of export. | Expenditure from Loans. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| 1869 | 8,392,753 | 9,933,442 | ......... | 1,540,689 | 982,000 |
| 1870 | 7,757,281 | 7,990,038 | ......... | 232,757 | 135,100 |
| 1871 | 9,609,508 | 11,245,032 | ........ | 1,635,524 | 933,200 |
| 1872 | 9,208,496 | 10,447,049 | ......... | 1,238,553 | 158,900 |
| 1873 | 10,887,511 | 12,545,905 | ......... | 1,658,394 | 69,185 |
| 1874 | 11,293,739 | 12,345,603 | ......... | 1,051,864 | *326,044 |
| 1875 | 13,490,200 | 13,671,580 | ......... | 181,380 | 954,266 |
| 1876 | 13,672,776 | 13,003,941 | 668,835 | ......... | 288,882 |
| 1877 | 14,852,771 | 13,457,900 | 1,394,878 | ......... | 995,454 |
| 1878 | 14,104,645 | 13,134,405 | 1,970,240 | ......... | 816,317 |
| 1879 | 14,503,826 | 13,131,931 | 1,371,895 | ......... | 1,271,705 |
| 1880 | 14,176,063 | 15,682,802 | ......... | 1,506,739 | 1,668,619 |
| 1881 | 17,587,012 | 16,307,805 | 1,279,207 | ......... | 2,397,368 |
| 1882 | 21,467,899 | 17,677,355 | 3,790,544 | ......... | 2,832,759 |
| 1883 | 21,522,841 | 20,262,273 | 1,260,568 | ......... | 3,265,711 |
| 1884 | 23,160,916 | 18,577,290 | 4,583,626 | ......... | 3,674,707 |
| 1885 | 23,737,461 | 16,750,107 | 6,987,354 | ......... | 3,896,145 |
| 1886 | 20,973,548 | 15,556,213 | 5,417,335 | ......... | 3,766,356 |

* Reduction.

Net amount of British money invested 1869-86.

The increase in the public debt during the period covered by the foregoing table, but not including £3,095,056 unexpended at the close of 1886, was £28,393,163. The payments on account of interest on loans, however, amounted to about £11,968,553, leaving the net amount of British money imported into New South Wales by the Government as about £16,424,610. The excess of imports during the same period, as shown above, was £18,678,582, which is practically equal to the net amount of the proceeds of loans.

As money brought here, either for investment, or earned by New South Wales investments outside the Colony, shows in the imports, and, as on the other hand, the earnings of foreign investments in the Colony, and the expenditure of colonists living abroad, appear in the exports, it would seem that the gains and losses of the Colony from these sources practically balance one another. If such be the case, it is evident that a stoppage of the flow of loan money to the Colony must be attended by an excess of exports, as was experienced during some of the years of the series shown in the foregoing table.

## *PUBLIC WEALTH.*

Valuation of public and private wealth.

At the close of the year 1886, the estimated value of the public and private wealth of the Colony was £521,000,000, or about £520 per head of population. The public estate is valued at £175,128,000, or about £174 13s. 2d. per head, while the personal and private wealth of the Colony amounts to £346,250,000, or £345 11s. 2d. per head.

The public wealth of New South Wales consists of railways, telegraphs, public works, unsold lands, the latter mostly leased to pastoralists, and yielding revenue in the shape of rent. The value of each class in 1886, was :—

| | £ |
|---|---|
| Railways, tramways, telegraphs, and other revenue yielding works | 42,557,000 |
| Public works and buildings, not yielding revenue, or only indirectly | 13,040,000 |
| Unsold Crown lands, and balances due on lands sold conditionally | 114,563,000 |
| Total value of public property or estate | £170,160,000 |
| Municipal Property—Roads, buildings, and other works constructed by Municipalities | 4,968,000 |
| Total public wealth | £175,128,000 |

Estimated value of Public Works.

The present value of the Government railways and tramways of the Colony has been taken at the moderate estimate of £36,720,000, the sum of £29,339,180 having already been expended on their construction. The balance of the amount represents the value of Crown lands used for railway purposes, and not specially paid for, and the increased value of railway property during the thirty-one years which have elapsed since the lines were first opened for traffic. The present value of public roads formed out of general revenue has been taken at £5,000,000, which represents a life of eight years only,—the annual expenditure on roads being nearly £625,000. Harbour works, including wharves and dredging plant, are valued at £1,670,000, and public buildings and other works constructed out of revenue represent a total of £2,850,000. The remaining sum required to make up the total of £55,597,000 given above, viz., £9,357,000, represents the present value of telegraphs, water works, sewerage, and other public works, the cost of which was defrayed out of loans.

Estimated value of the Public Estate.

The value of the Public Estate appears in the estimate given above as £114,563,000. Of this sum £12,007,316 represents the amount due to the Crown by conditional purchases, while the remainder, being a little over £102,500,000, is the value of the unsold estate. The total area unalienated at the commencement of the year 1887 was 154,596,686 acres, and of this nearly 35,000,000 had been reserved from sale during former years. Much of this latter area comprises some of the best land in New South Wales, of which there is very little that would realize less than £1 per acre, while a large portion is estimated to be worth more than twice that sum. The value set down for the unsold Crown lands is therefore by no means extravagant.

Estimated value of municipal works.

The value of municipal works, over and above the liabilities on account thereof, is £4,968,000, thus, with the sums already given, making the total value of public and municipal property slightly over £175,000,000 sterling. Against this, however, must be set the Public Debt of the Colony, amounting to £41,034,249, or 23·4 per cent. of the total, thus leaving a surplus of £134,000,000 on the Public Estate alone.

## *PRIVATE WEALTH.*

**Private property in the Colony is estimated at the value of £346,250,000, comprised as follows :—**

| | |
|---|---|
| **Land, houses, and permanent improvements within Municipalities** | **£106,250,000** |
| **Land, houses, and permanent improvements outside Municipalities, including improvements to Crown lands** | **157,950,000** |
| **Stock and crops** | **26,000,000** |
| **Personal property, including household furniture** | **21,500,000** |
| **Machinery and implements of trade** | **6,500,000** |
| **Coin and bullion** | **7,800,000** |
| **Merchandise** | **18,250,000** |
| **Shipping owned in the Colony** | **2,000,000** |
| | **£346,250,000** |

**The total given above is certainly very large, but may be roughly verified by taking the amount of money left by persons** dying during 1886. Thus the total sum value of property claimed under probate and letters of administration was £5,495,000 for the year. The average rate of deaths was 1 in 64, and, therefore, 5,495,000 may be taken as representing one sixty-fourth of the private property of the Colony. This would make the total £351,680 000—an amount somewhat in excess of that given above.

Lands and buildngs within nunicipal oundaries.

The value of lands and buildings assessed for municipal purposes is £96,547,968, the annual value being £5,923,524, or 6·14 per cent. on the nominal capital value. It is well known, however, that the capital value of unimproved lands is generally greatly understated for municipal purposes, and the annual value per cent. of all property is, in reality, not so high as stated above. A fair estimate of the ratable value of property within municipal boundaries has been made and substituted in the above table, in lieu of the amount returned by the municipal authorities.

Land outside municipalities.

The area of land outside municipalities, which is in private hands, amounts to about 40,000,000 acres. On this area, the number of houses was, in 1886, about 110,000, valued at £27,500,000, while the value of the land itself was £90,250,000, being at the rate of little more than £2 10s. per acre. Much indeed of this land is scarcely worth, in the open market, half the sum named; on the other hand, the greater portion is worth considerably more. The permanent improvements effected in the purchased lands of the Colony, and on the holdings of pastoral tenants have been valued at £34,500,000.

The determination of an exact value for any of the items which comprise the estimate just given is, of course, impossible, but it is believed that the sums named fairly represent the value of the property against which they stand.

Personal property and furniture.

The value of personal property and furniture was assumed to be equal to a third of the value of the house property. The estimate may, perhaps, be considered too low when it is borne in mind that it is usual in England to estimate the value of furniture alone at half the value of house property.

Merchandise.

Merchandise represents the value of the goods and stocks of all kinds, whether in store or shops, or at the place of production, and averages in value half the imports and exports taken together.

The following is a summary of the total value as well as of the values per head of population :—

| | Total. | Value per head. |
|---|---|---|
| Public wealth ................ | 175,000,000 | £174 13 2 |
| Private wealth ................ | 346,250,000 | 345 11 2 |
| Total wealth. ..... ........... | 521,250,000 | 520 4 4 |

Increase in value of estates of deceased persons.

The value of the estates of persons whose wills were proved in the Colony, or for which letters of administration were granted, has increased very rapidly, as may be seen from the following table. The great increase during 1886, is, however, probably due to the falling in of a very large estate, rather than to any particular increase in value of property over that of the previous year.

No. 248.—Value of Property for which Probate or Letters of Administration were granted:—

| Year. | No. of Probates and administrations—will annexed. | Amount sworn to. | No. of Letters of administration. | Amount sworn to. | Total No. of Estates. | Total Amount sworn to. |
|---|---|---|---|---|---|---|
| | | £ | | £ | | £ |
| 1876 | 511 | 1,677,972 | 415 | 223,189 | 926 | 1,901,161 |
| 1877 | 530 | 1,336,599 | 471 | 291,391 | 1,001 | 1,627,990 |
| 1878 | 573 | 1,735,064 | 514 | 281,367 | 1,087 | 2,016,431 |
| 1879 | 579 | 2,116,906 | 472 | 269,991 | 1,051 | 2,386,898 |
| 1880 | 667 | 1,323,823 | 506 | 210,816 | 1,173 | 1,534,639 |
| 1881 | 671 | 2,011,305 | 526 | 307,818 | 1,197 | 2,319,123 |
| 1882 | 810 | 3,586,554 | 589 | 581,528 | 1,399 | 4,168,082 |
| 1883 | 862 | 3,528,602 | 613 | 588,029 | 1,475 | 4,116,631 |
| 1884 | 933 | 3,642,709 | 648 | 605,543 | 1,581 | 4,248,252 |
| 1885 | 961 | 3,721,805 | 659 | 601,542 | 1,620 | 4,323,347 |
| 1886 | 1,026 | 4,726,918 | 706 | 768,628 | 1,732 | 5,495,546 |

Average value of estates.

Two things are plainly noticeable from this table, especially if it be viewed in connection with the subsequent one, viz.,—that the proportionate number of persons leaving property shows a general tendency to increase faster than the population, whilst the average value of estates is also increasing. As regards the latter, the average is somewhat irregular owing to the occurrence at irregular intervals of the deaths of very wealthy men, which, amongst so comparatively few deaths, considerably affect the average. Such was the case during 1886, when one will alone was sworn at £937,000.

No. 249.—Value of Property left by Persons who Died during the years 1876–86 :—

| Year. | Number of Wills proved or administrations granted. | Number of deaths. | Per-centage of Persons who left property. | Average value of Estates left by persons with property. |
|---|---|---|---|---|
| | | | | £ |
| 1876 | 926 | 11,193 | 8·27 | 2,053 |
| 1877 | 1,001 | 9,869 | 10·14 | 1,626 |
| 1878 | 1,087 | 10,763 | 10·10 | 1,855 |
| 1879 | 1,051 | 10,200 | 10·30 | 2,271 |
| 1880 | 1,173 | 11,231 | 10·44 | 1,308 |
| 1881 | 1,197 | 11,536 | 10·29 | 1,938 |
| 1882 | 1,399 | 12,816 | 10·92 | 2,979 |
| 1883 | 1,475 | 12,249 | 12·04 | 2,791 |
| 1884 | 1,581 | 12,220 | 12·94 | 2,687 |
| 1885 | 1,620 | 15,282 | 10·60 | 2,669 |
| 1886 | 1,732 | 14,587 | 11·87 | 3,173 |

## *INCOME.*

Income from pastoral, agricultural, or mineral produce

The income of persons living in or holding property in New South Wales is estimated at £50,500,000. The estimate must be taken as approximate only, as no income or other returns are obtained. The following table gives a subdivision of the sum named The value of pastoral, agricultural, and mineral produce is that obtained at the place of production, and does not therefore include the additional value which such produce acquires before it reaches the port of shipment or the local market. The total value of pastoral, agricultural, and mineral produce, that is the produce obtained from the soil, would appear to be

£17,250,000, or rather more than one-third of the whole income. The yearly income of wage-earners amounts to about the same sum, but a considerable amount of wages would be included in the value of produce, though not counted twice over in the following totals :—

Summary of total incomes.

No. 250.—Estimated Income of Persons resident or holding property in New South Wales.

| | |
|---|---|
| Pastoral industry (return from stock and dairy farms, including wages of all persons directly employed)... | £10,500,000 |
| Agriculture (value of crops, including wages of all persons directly employed) | 3,750,000 |
| Minerals obtained (including wages of all persons directly employed) | 3,000,000 |
| Manufactures, less cost of raw materials | 5,750,000 |
| Earnings of tradesmen, labourers, and others not engaged in either of the above pursuits | 8,000,000 |
| Earnings of persons engaged in personal or household service | 1,500,000 |
| Professional incomes | 2,500,000 |
| Civil Service and employés of the Government | 2,500,000 |
| Trade and commerce, comprising incomes not elsewhere included | 3,500,000 |
| Shipping, including wages of all persons directly connected therewith | 2,500,000 |
| Rents, not elsewhere included, being net annual value of property not used for farming, grazing, or mining | 7,000,000 |

## *CURRENCY.*

Coinage of gold in Sydney.

Gold is coined only at the Sydney Mint, though silver and bronze of English coinage are also issued. The weight of the gold sent for coinage from the first opening of the Mint on the 14th May, 1855, to the end of 1886 was 15,005,884 oz., valued at £56,880,142; of this quantity New South Wales produced only 6,994,135 oz., of the value of £26,716,196, the amount from each Colony being :—

No. 251.—Weight and Value of Gold received for Coinage at the Sydney Mint.

| Colony where gold was produced. | Weight. | Value. |
|---|---|---|
| | oz. | £ |
| New South Wales | 6,994,135 | 26,716,196 |
| Queensland | 4,291,490 | 15,283,436 |
| New Zealand | 2,060,402 | 8,133,239 |
| Victoria | 1,438,095 | 5,906,075 |
| Tasmania | 6,156 | 23,797 |
| South Australia | 41,924 | 151,803 |
| Other countries | 12,459 | 41,637 |
| Coin | 161,223 | 623,960 |
| Total | 15,005,884 | 56,880,142 |

New South Wales and Queensland gold coined at Sydney.

The greater part of the gold won in New South Wales and Queensland, and also part of the produce of New Zealand and South Australia, comes to Sydney for coinage; but by far the larger portion of the gold of the colonies last-mentioned, as well as of the other colonies of the group, goes to Melbourne. The total value of gold raised in all Australia to the end of 1886 amounted to £317,312,707, nearly 18 per cent. of which passed through the Mint of this Colony. Out of the £56,880,142 worth of gold minted £54,168,000 was converted into coin, the value of sovereigns and half-sovereigns being :—

No. 252.—Gold Coin issued by the Sydney Mint.

| Year | Sovereigns. | Half-sovereigns. | Total. |
|---|---|---|---|
| | £ | £ | £ |
| 1855 to 1875 | 36,045,500 | 1,933,500 | 37,979,000 |
| 1876 | 1,613,000 | 30,000 | 1,643,000 |
| 1877 | 1,590,000 | ............ | 1,590,000 |
| 1878 | 1,259,000 | 63,000 | 1,322,000 |
| 1879 | 1,366,000 | 47,000 | 1,413,000 |
| 1880 | 1,459,000 | 40,000 | 1,499,000 |
| 1881 | 1,360,000 | 31,000 | 1,391,000 |
| 1882 | 1,298,000 | 26,000 | 1,324,000 |
| 1883 | 1,108,000 | 110,000 | 1,218,000 |
| 1884 | 1,595,000 | ............ | 1,595,000 |
| 1885 | 1,486,000 | ............ | 1,486,000 |
| 1886 | 1,667,000 | 41,000 | 1,708,000 |
| Total | 51,846,500 | 2,321,500 | 54,168,000 |

Bronze and silver coin issued by Mint.

**Bronze coin was first issued from the Mint in 1868, and silver coin in 1879. The respective value of each to the close of the year 1886, being:—Bronze, £28,570; silver, £321,400. The amount of each particular currency issued in each year is shown on the following table:—**

**No. 253.—Royal Mint, Sydney Branch: New Silver and Bronze Coin issued, 1868–86.**

| Year. | Silver Coin issued. | | | | | | Bronze Coin issued. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Half-crowns. | Florins. | Shillings. | Sixpences. | Three-pences. | Total. | Pence. | Half-pence | Total. |
| | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| 1868 to 1875 | ...... | ...... | ...... | ...... | ...... | ...... | 12,620 | 2,565 | 15,185 |
| 1876 | ...... | ..... | ...... | ...... | ...... | ...... | 815 | 230 | 1,045 |
| 1877 | ...... | ...... | ...... | ...... | ...... | ...... | 565 | 205 | 770 |
| 1878 | ...... | ...... | ...... | ...... | ...... | ...... | 560 | 175 | 735 |
| 1879 | 17,000 | 15,972 | 12,000 | 3,681 | 4,647 | 53,300 | 680 | 230 | 910 |
| 1880 | 11,300 | 6,428 | 11,900 | 2,219 | 3,153 | 35,000 | 450 | 95 | 545 |
| 1881 | 14,600 | 10,600 | 12,000 | 3,600 | 2,700 | 43,500 | 300 | 410 | 710 |
| 1882 | 12,100 | 11,300 | 13,800 | 1,300 | 4,000 | 42,500 | 1,475 | 475 | 1,950 |
| 1883 | 11,200 | 9,300 | 13,000 | 2,400 | 3,700 | 39,600 | 1,015 | 360 | 1,375 |
| 1884 | 15,000 | 11,800 | 11,300 | 4,300 | 3,800 | 46,200 | 1,510 | 255 | 1,765 |
| 1885 | 11,100 | 7,200 | 12,450 | 5,550 | 7,600 | 43,900 | 2,040 | 445 | 2,485 |
| 1886 | 2,600 | 200 | 5,500 | 1,450 | 7,650 | 17,400 | 870 | 225 | 1,095 |
| Total... £ | 94,900 | 72,800 | 91,950 | 24,500 | 37,250 | 321,400 | 22,900 | 5,670 | 28,570 |

Silver coin withdrawn.

The amount of silver coin withdrawn from circulation from 1873, when the Mint first received worn coin, until 1886, was of the nominal value of £103,823. The actual weight after smelting was 328,036oz., and the corresponding weight of new coinage would be 377,539oz. The loss was therefore 49,503 oz., while the coins were in circulation. The average loss being 13·11 per cent.

Coin held by banks.

Both the amount of coin held by the banks, and in circulation, was larger during 1886 than in any previous year, though, as compared with the population, the total has been stationary for some years, as will be seen from the following table:—

No. 254.—Coin in Circulation and in Banks, with Average per Head of Population, at the close of each year from 1870 to 1886 :—

| Year. | Coin in Banks. | Average. | | | Coin in Private Hands. | Average. | | | Total in Banks and in Private Hands. | Average. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | s. | d. | £ | £ | s. | d. | £ | £ | s. | d. |
| 1870 | 1,352,842 | 2 | 15 | 2 | 1,960,344 | 4 | 0 | 0 | 3,313,186 | 6 | 15 | 2 |
| 1871 | 2,413,144 | 4 | 15 | 0 | 2,004,036 | 3 | 18 | 10 | 4,417,180 | 8 | 13 | 10 |
| 1872 | 2,693,154 | 5 | 2 | 4 | 2,075,546 | 3 | 18 | 7 | 4,768,700 | 9 | 0 | 11 |
| 1873 | 1,970,075 | 3 | 12 | 5 | 2,191,794 | 4 | 0 | 6 | 4,161,869 | 7 | 12 | 11 |
| 1874 | 2,283,353 | 4 | 1 | 0 | 2,279,316 | 4 | 0 | 10 | 4,562,669 | 8 | 1 | 10 |
| 1875 | 2,525,698 | 4 | 6 | 5 | 2,179,326 | 3 | 14 | 7 | 4,705,024 | 8 | 1 | 0 |
| 1876 | 2,732,104 | 4 | 10 | 5 | 2,191,945 | 3 | 12 | 7 | 4,924,049 | 8 | 3 | 0 |
| 1877 | 2,435,126 | 3 | 17 | 5 | 2,394,750 | 3 | 16 | 2 | 4,829,876 | 7 | 13 | 7 |
| 1878 | 2,227,115 | 3 | 1 | 10 | 2,366,831 | 3 | 12 | 0 | 4,593,946 | 6 | 13 | 10 |
| 1879 | 3,102,345 | 4 | 9 | 10 | 2,417,377 | 3 | 10 | 0 | 5,519,722 | 7 | 19 | 10 |
| 1880 | 3,637,568 | 5 | 0 | 3 | 2,605,370 | 3 | 11 | 9 | 6,242,938 | 8 | 12 | 0 |
| 1881 | 2,885,890 | 3 | 16 | 0 | 3,104,397 | 4 | 1 | 7 | 5,990,287 | 7 | 17 | 7 |
| 1882 | 2,672,799 | 3 | 7 | 2 | 3,128,415 | 3 | 18 | 9 | 5,801,214 | 7 | 5 | 11 |
| 1883 | 2,861,980 | 3 | 12 | 7 | 2,989,137 | 3 | 11 | 7 | 5,851,117 | 7 | 4 | 2 |
| 1884 | 3,863,873 | 4 | 7 | 10 | 2,988,744 | 3 | 7 | 9 | 6,852,617 | 7 | 15 | 7 |
| 1885 | 4,069,840 | 4 | 7 | 5 | 3,250,082 | 3 | 9 | 9 | 7,319,922 | 7 | 17 | 2 |
| 1886 | 4,439,742 | 4 | 8 | 7 | 3,361,904 | 3 | 7 | 1 | 7,801,646 | 7 | 15 | 8 |

Stock of gold and silver unchanged.

Though the stock of gold and silver, as compared with the population, has remained almost unchanged for six years, there is evidently a tendency to reduce the quantity of coin required for the business of the country. As compared with England, the amount of coin in use per head seems very considerable, being nearly twice as great here as in that country, though the methods of transacting business are not essentially different. The spread of the banking system is generally attended with a diminution of the amount of coin required for the ordinary transactions of business, and the existence of a larger supply of coin per head would, as a rule, argue the lack of banking facilities. In New South Wales the banking system is very widely developed, and the difference alluded to arises from the greater diffusion of wealth amongst the mass of the people in this and the other colonies than is the case in England or, perhaps, in any other country.

### *BANKING.*

Capital and profits of banks.

The nominal capital of banks trading in the Colony is £11,503,917, but much of this capital is not exclusively used in the Colony. It has been found impossible to determine the proportion of the whole capital required for the business of the Colony, the figures relating to capital in the ensuing tables, therefore, refer to the nominal capital paid up. The income derived by the banks during 1886, amounted to £1,541,345, or at an average rate of nearly 13·4 per cent. per annum, the rates varying from 6 to 25 per cent. The capital and profits of banks operating in this Colony during 1886 will be found below.

No. 255.—Capital and Profits of Banks operating in the Colony, 1886 :—

| Banks. | Capital paid up. | Rate per Annum of last Dividend. | Amount of Dividend. | Amount of Reserved Profits at the time of declaring Dividend. |
|---|---|---|---|---|
| | £ | ℘ cent. | £ | £ |
| New South Wales ..... ......... | 1,215,080 | 17½ | 175,000 | 740,800 |
| Commercial ... .................... | 600,000 | 25 | 150,000 | 730,135 |
| Australasia ........................ | 1,600,000 | 15 | 240,000 | 790,000 |
| Union of Australia............... | 1,500,000 | 14 | 225,000 | 1,100,771 |
| Australian Joint Stock ....... .. | 500,000 | 12½ | 62,500 | 276,389 |
| London Chartered of Australia | 1,000,000 | 6 | 60,000 | 158,923 |
| English, Scottish, and Australian Chartered ........... | 720,000 | 10 | 72,000 | 220,000 |
| Commercial Bank of Australia | 800,000 | 12½ | 100,000 | 400,698 |
| City ................................. | 240,000 | 12½ | 30,000 | 128,264 |
| Mercantile Bank of Sydney... | 300,000 | 9 | 27,000 | 169,522 |
| Federal Bank of Australia ... | 400,000 | 8 | 32,000 | 62,069 |
| Queensland National Bank ... | 652,300 | 15 | 97,845 | 323,156 |
| Bank of New Zealand ......... | 1,000,000 | 12½ | 150,000 | 698,641 |
| National Bank of Australasia | 976,537 | 15 | 120,000 | 652,873 |
| Totals...... | 11,503,917 | ...... | 1,541,345 | 6,452,241 |

Restriction of note circulation.

Banks trading in the Colony are allowed a note circulation equal to the amount of their paid-up capital and the coin and bullion in store. In the years covered by the tables given below it will be seen that the banks have in no instance availed themselves, to the full extent, of their privilege in this regard.

The magnitude of the operations of banks may best be gathered from the following table, especially from the column showing the value of notes and bills discounted, and debts due.

No. 256.—Assets of Banks trading in New South Wales, average of each year from 1871 to 1886 :—

| Year. | Coin. | Bullion. | Notes and Bills of other Banks | Balances due from other Banks. | Notes and Bills discounted and all other debts due to the Banks. | Landed Property. | Total Assets. |
|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ |
| 1871 | 1,867,278 | 184,553 | 34,364 | 1,299,636 | 7,593,538 | 301,157 | 11,280,526 |
| 1872 | 2,859,325 | 126,201 | 35,875 | 1,772,132 | 7,993,223 | 307,431 | 13,094,188 |
| 1873 | 1,972,092 | 76,483 | 34,069 | 2,767,554 | 9,116,831 | 296,545 | 14,263,574 |
| 1874 | 2,322,269 | 192,254 | 42,247 | 3,331,488 | 10,074,712 | 313,986 | 16,276,956 |
| 1875 | 2,476,456 | 112,319 | 51,461 | 3,581,149 | 11,770,185 | 326,741 | 18,318,311 |
| 1876 | 2,828,503 | 87,063 | 63,247 | 3,854,768 | 12,801,716 | 347,291 | 19,982,588 |
| 1877 | 2,586,053 | 84,415 | 62,324 | 3,158,520 | 15,354,507 | 385,875 | 21,631,694 |
| 1878 | 2,262,526 | 86,194 | 64,532 | 3,252,519 | 16,762,111 | 425,478 | 22,853,362 |
| 1879 | 2,488,175 | 83,824 | 50,614 | 3,527,303 | 17,098,052 | 486,869 | 23,734,837 |
| 1880 | 3,373,618 | 73,651 | 55,453 | 3,712,664 | 16,661,815 | 521,612 | 24,398,813 |
| 1881 | 3,594,914 | 80,068 | 73,285 | 3,110,110 | 19,038,386 | 585,224 | 26,481,987 |
| 1882 | 3,022,159 | 74,308 | 96,462 | 3,251,905 | 23,517,046 | 662,851 | 30,624,731 |
| 1883 | 2,798,536 | 80,018 | 113,677 | 2,944,965 | 25,894,669 | 748,140 | 32,580,005 |
| 1884 | 3,559,859 | 61,223 | 117,983 | 3,225,096 | 27,479,142 | 818,043 | 35,261,346 |
| 1885 | 4,171,043 | 62,066 | 131,448 | 1,936,042 | 30,556,628 | 958,349 | 37,815,576 |
| 1886 | 3,958,238 | 66,243 | 125,073 | 2,020,946 | 32,527,431 | 1,107,377 | 39,805,307 |

Rapid increase of assets of banks.

During the fifteen years covered by the above table, the population of the Colony has nearly doubled. In the same period the amount of notes and bills discounted, and other debts due to the banks have increased more than four and a fourth times, while the total assets have increased more than three and a half times. This certainly denotes a very wide extension of the banking system, and a correspondingly large increase in the amount of wealth accumulating during the interval.

Extent of operations disclosed by liabilities.

The amount of the liabilities of the banks is shown in the following table. The circulation of notes increased very rapidly during the earlier years, but since 1881 the amount of paper in circulation has practically remained the same. The magnitude of the banking operations of the country may be gathered from this table equally with the preceding one; the rapid increase in the amounts of deposits, especially those bearing interest, is perhaps its most remarkable feature.

No. 257.—**Liabilities of Banks trading in New South Wales, average of each year from 1871 to 1886 :—**

| Year. | Notes in Circulation. | Bills in Circulation. | Balances due to other Banks. | Deposits not bearing Interest. | Deposits bearing Interest. | Total Deposits. | Total Liabilities. |
|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ |
| 1871 | 694,344 | 42,816 | 171,896 | ..... ... | ........... | 6,662,856 | 7,571,912 |
| 1872 | 789,544 | 42,916 | 191,325 | ......... | ........... | 8,653,481 | 9,672,267 |
| 1873 | 1,005,639 | 34,289 | 191,794 | ......... | ........... | 11,369,184 | 12,600,906 |
| 1874 | 920,620 | 32,067 | 243,535 | ......... | ........... | 9,760,661 | 10,956,813 |
| 1875 | 1,080,088 | 34,811 | 251,727 | ......... | ........... | 13,132,772 | 14,499,398 |
| 1876 | 1,093,862 | 33,712 | 205,976 | 5,146,536 | 9,563,608 | 14,710,144 | 16,043,694 |
| 1877 | 1,129,279 | 37,618 | 252,172 | 5,061,231 | 10,984,264 | 16,045,495 | 17,464,564 |
| 1878 | 1,167,519 | 18,621 | 228,804 | 4,933,643 | 11,678,843 | 16,612,486 | 18,047,430 |
| 1879 | 1,123,123 | 41,703 | 152,422 | 4,898,724 | 12,352,454 | 17,251,178 | 18,568,426 |
| 1880 | 1,173,663 | 45,229 | 222,686 | 5,683,870 | 12,209,781 | 17,893.651 | 19,335,229 |
| 1881 | 1,390,376 | 52,687 | 393,848 | 7,719,236 | 11,869,979 | 19,589,215 | 21,426,126 |
| 1882 | 1,614,191 | 57,487 | 639,192 | 8,310,054 | 13,772,826 | 22,082,880 | 24,393,750 |
| 1883 | 1,677,146 | 64,596 | 625,124 | 7,158,975 | 16,302,407 | 23,461,382 | 25,828,248 |
| 1884 | 1,644,469 | 60,443 | 583.020 | 7,453,914 | 17,738,445 | 25,192,359 | 27,480,291 |
| 1885 | 1,714,095 | 55,300 | 868,543 | 8,819.979 | 18,387,705 | 27,207,684 | 29,845,622 |
| 1886 | 1,621,090 | 60,827 | 1,366,202 | 8,355,255 | 18,974,984 | 27,330,239 | 30,378,358 |

Surplus of assets. The surplus of assets over liabilities, as disclosed by the foregoing tables, will best be seen from the following summary, the increase during the fifteen years embraced therein being from £3,708,614 to £9,426,949.

No. 258.—Surplus of Assets of Banks over Liabilities :—

| Year. | Assets. | Liabilities. | Surplus Assets. |
|---|---|---|---|
| | £ | £ | £ |
| 1871 | 11,280,526 | 7,571,912 | 3,708,614 |
| 1872 | 13,094,188 | 9,672,267 | 3,421,921 |
| 1873 | 14,263,574 | 12,600,906 | 1,662,668 |
| 1874 | 16,276,956 | 10,956,813 | 5,320,143 |
| 1875 | 18,318,311 | 14,499,398 | 3,818,913 |
| 1876 | 19,982,588 | 16,043,694 | 3,938,894 |
| 1877 | 21,631,694 | 17,464,564 | 4,167,130 |
| 1878 | 22,853,362 | 18,047,430 | 4,805,932 |
| 1879 | 23,734,837 | 18,568,426 | 5,166,411 |
| 1880 | 24,398,813 | 19,335,229 | 5,063,584 |
| 1881 | 26,481,987 | 21,426,126 | 5,055,861 |
| 1882 | 30,624,731 | 24,393,750 | 6,230,981 |
| 1883 | 32,580,005 | 25,828,248 | 6,751,757 |
| 1884 | 35,261,346 | 27,480,291 | 7,781,055 |
| 1885 | 37,815,576 | 29,845,622 | 7,969,954 |
| 1886 | 39,805,307 | 30,378,358 | 9,426,949 |

**Large sums deposited with Building Societies.**

In the next table is given the amount of deposits during each year, from 1871 to 1886, in the chartered banks and the Government Savings and Post Office Banks. The increase has been singularly rapid, not only absolutely, but also as compared with the increase in population. The whole of the deposit banks of the Colony are not included in this table. A very considerable sum is received by building and other societies which offer a larger interest than either the ordinary banks or the Government institutions. Part of this money appears in the deposits shown in the subsequent table, but the larger portion does not so appear. How much money is entrusted to building and investment societies is not accurately known, though it is probably not less than two millions sterling. The deposits increased during fifteen years from £7,989,801 to £31,933,056, or in all £23,943,255, the rate per head advancing from £15 8s. 7d. to £31 17s. 5d.

No. 259.—Amount of Money on Deposit in Banks of the Colony during last quarter of each year, 1871–86, with rate per head :—

| Year. | Banks. | Savings Banks. | Post Office Banks. | Total. | Amount per head of Population. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| 1871 | 7,043,886 | 931,688 | 14,227 | 7,989,801 | 15 8 7 |
| 1872 | 9,273,087 | 1,028,738 | 80,683 | 10,382,513 | 19 7 11 |
| 1873 | 10,279,324 | 1,164,561 | 206,070 | 11,649,955 | 21 0 8 |
| 1874 | 11,884,958 | 1,275,902 | 303,113 | 13,463,973 | 23 8 4 |
| 1875 | 13,650,892 | 1,295,797 | 354,075 | 15,300,764 | 25 14 11 |
| 1876 | 14,859,505 | 1,303,813 | 400,120 | 16,563,438 | 26 19 4 |
| 1877 | 16,325,043 | 1,355,258 | 467,453 | 18,147,754 | 28 3 10 |
| 1878 | 16,722,453 | 1,333,017 | 480,025 | 18,535,495 | 28 11 8 |
| 1879 | 17,862,840 | 1,410,905 | 511,357 | 19,784,102 | 28 1 8 |
| 1880 | 17,883,024 | 1,489,360 | 586,496 | 19,958,880 | 26 18 0 |
| 1881 | 20,308,017 | 1,427,202 | 971,501 | 22,706,720 | 29 3 2 |
| 1882 | 22,544,549 | 1,856,641 | 1,158,454 | 25,559,644 | 31 10 6 |
| 1883 | 23,739,134 | 1,822,319 | 1,183,519 | 26,744,972 | 31 3 7 |
| 1884 | 26,250,420 | 1,887,349 | 1,290,931 | 29,428,700 | 32 11 1 |
| 1885 | 26,709,386 | 2,016,656 | 1,471,894 | 30,197,936 | 31 10 6 |
| 1886 | 28,428,253 | 2,081,498 | 1,423,305 | 31,933,056 | 31 17 5 |

Effect of depression on deposits.

The year 1886 was a very trying one in the Colony, which suffered not a little from the depression which seems to have very generally prevailed. The effect of this is visible in the deposits in the people's savings banks. The number of depositors at the close of the last two years and the amount to their credit was :—

| | 1885. | | 1886. | |
|---|---|---|---|---|
| | Depositors. | Amount. | Depositors. | Amount. |
| | | £ | | £ |
| Savings banks ...... | 49,977 | 2,016,656 | 52,378 | 2,081,498 |
| Post Office banks... | 57,538 | 1,471,894 | 59,566 | 1,422,305 |
| Total ... | 107,515 | 3,488,550 | 111,944 | 3,504,803 |

It will be seen that there has been an increase both in the number of accounts and in the amount of deposits. As regards the latter, the increase is more apparent than real, as in it is included the interest earned by the money remaining from 1885 or deposited during 1886.

Interest allowed in Savings Banks.

Interest is allowed in the Government Savings Bank at the rate of 5 per cent. for any period of a year. For sums which remained deposited during the whole year, the interest given during 1886 was 6 per cent. In the Post Office banks the rate allowed is 4 per cent. per annum.

Effect of depression on insolvency.

The prevailing depression elsewhere alluded to found expression in the unusually large number of insolvencies which occurred during 1886, as shown in the following table. The nominal deficiency shown by insolvents' schedules was not greater than in some previous years, but the estimate of liabilities and assets, particularly the latter, are to be accepted with caution.

No. 260.—Number of Insolvencies in the Colony, with Amount of Liabilities, Assets, &c., during the years 1876–86 :—

| Year. | Number of Insolvents. | | | Amount of Liabilities as shown in the insolvents' schedules. | Amount of Assets, as shown in the insolvents' schedules. | Amount of Deficiency shown in the insolvents' estates. |
|---|---|---|---|---|---|---|
| | Voluntary. | Compulsory. | Total. | | | |
| | | | | £ | £ | £ |
| 1876 | 461 | 41 | 502 | 492.846 | 169,603 | 323,243 |
| 1877 | 534 | 54 | 588 | 508,352 | 210,821 | 297,531 |
| 1878 | 652 | 64 | 716 | 664,736 | 350,176 | 314,560 |
| 1879 | 767 | 96 | 863 | 781,334 | 306,103 | 475,231 |
| 1880 | 784 | 50 | 834 | 479,863 | 292,233 | 187,630 |
| 1881 | 664 | 60 | 724 | 379,289 | 218,211 | 161,078 |
| 1882 | 686 | 48 | 734 | 307,083 | 167,875 | 139,208 |
| 1883 | 720 | 65 | 785 | 444,593 | 245,836 | 189,757 |
| 1884 | 856 | 62 | 918 | 836,164 | 580,194 | 255,970 |
| 1885 | 849 | 80 | 929 | 773,212 | 589,359 | 183,853 |
| 1886 | 1,116 | 105 | 1,221 | 989,261 | 723,127 | 256,134 |

Money secured by lien on wool.

The amount of money advanced on the security of the wool-clip and the live stock of the Colony is always very large. Such advances do not necessarily mean a scarcity of money on the part of the borrowers, as the system of liens and mortgages is part of the ordinary method of carrying on the trade of the country. Advances were, however, made more largely during the years of depression, which extended over the period from 1878 to 1882, as will be seen below.

No. 261.—Number and Amount of Preferable Liens on Wool and of Mortgages on Live Stock, registered in the Colony, 1876—86 :—

| Year. | Preferable Liens on Wool. | | | Mortgages on Live stock. | | | | |
|---|---|---|---|---|---|---|---|---|
| | No. of Liens. | No. of Sheep. | Amount of Liens. | No. of Mortgages. | No. of Sheep. | No. of Horned Cattle. | No. of Horses. | Amount lent. |
| | | | £ | | | | | £ |
| 1876 | 920 | 4,828,951 | 752,818 | 758 | 2,480,004 | 258,447 | 5,847 | 2,157,834 |
| 1877 | 994 | 4,386,378 | 627,779 | 1,094 | 2,565,962 | 185,796 | 6,726 | 2,004,363 |
| 1878 | 1,027 | 4,611,696 | 714,272 | 914 | 2,647,183 | 183,210 | 8,412 | 2,059,348 |
| 1879 | 1,246 | 6,602,742 | 1,005,118 | 925 | 3,538,161 | 128,685 | 9,564 | 2,268,850 |
| 1880 | 1,479 | 6,216,741 | 981,171 | 901 | 4,858,265 | 183,555 | 401 | 2,818,967 |
| 1881 | 1,609 | 5,709,061 | 904,011 | 1,275 | 5,982,994 | 215,564 | 9,646 | 4,623,914 |
| 1882 | 1,289 | 4,837,667 | 801,174 | 1,074 | 3,865,331 | 112,441 | 8,391 | 3,391,984 |
| 1883 | 1,301 | 6,349,801 | 1,026,573 | 1,077 | 3,601,890 | 131,068 | 7,389 | 2,486,407 |
| 1884 | 1,379 | 4,168,185 | 973,179 | 1,471 | 2,696,994 | 77,241 | 8,097 | 1,881,082 |
| 1885 | 1,236 | 5,263,407 | 1,327,214 | 1,431 | 4,730,233 | 117,241 | 10,764 | 2,962,471 |
| 1886 | 1,187 | 9,049,194 | 1,454,154 | 1,363 | 4,323,553 | 79,616 | 10,349 | 2,404,813 |

When any sum has been secured, both by a lien on the wool and by a mortgage of the sheep, the amount is included under the head of mortgages only.

Discharges of advances.

The above however does not give an exact statement of the case as a large portion of the advances made were discharged, as will be seen in the following table.

No. 262.—Number and Amount on Discharges of Mortgages on Live Stock registered in the Colony, 1876–86 :—

| Year. | Number. | Amount. | | | Year. | Number. | Amount. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | £ | s. | d. | | | £ | s. | d. |
| 1876 | 190 | 1,028,079 | 4 | 2 | 1882 | 258 | 1,900,443 | 5 | 9 |
| 1877 | 225 | 1,292,703 | 3 | 6 | 1883 | 126 | 600,425 | 19 | 3 |
| 1878 | 159 | 1,037,119 | 1 | 11 | 1884 | 306 | 3,801,352 | 2 | 1 |
| 1879 | 161 | 1,247,708 | 4 | 11 | 1885 | 208 | 1,173,672 | 11 | 0 |
| 1880 | 232 | 3,804,475 | 5 | 11 | 1886 | 150 | 849,742 | 0 | 0 |
| 1881 | 399 | 2,781,122 | 2 | 2 | | | | | |

Advances in growing crops.

Other advances on produce are also made, the principal class being that on growing crops. Such advances do not reach large sums either individually or in their total. The amount of advances made on crops for eleven years was.

No. 263.—Number and Amount of Liens on Growing Crops in the Colony, registered in Sydney, 1876–86 :—

| Year. | Number. | Amount. | | | Year. | Number. | Amount. | | |
|---|---|---|---|---|---|---|---|---|---|
| | | £ | s. | d. | | | £ | s. | d. |
| 1876 | 319 | 16,418 | 14 | 2 | 1882 | 854 | 40,378 | 12 | 7 |
| 1877 | 477 | 27,086 | 8 | 6 | 1883 | 814 | 50,789 | 5 | 5 |
| 1878 | 539 | 43,186 | 6 | 7 | 1884 | 888 | 54,056 | 16 | 4 |
| 1879 | 778 | 55,869 | 1 | 4 | 1885 | 857 | 71,153 | 0 | 0 |
| 1880 | 797 | 81,625 | 19 | 11 | 1886 | 989 | 70,212 | 0 | 0 |
| 1881 | 897 | 42,255 | 3 | 7 | | | | | |

Mortgages registered.

The transactions in regard to mortgages of land have increased very rapidly, the amount of such mortgages registered in 1886 was £7,570,210, and in 1885 not less than £11,360,108. Besides there were many mortgages not registered. The great increase shown in 1885 over any previous year is due to mortgages of country lands, on which a sum of £7,990,086 was advanced, an amount not only larger than that lent on country lands before or since, but larger than the whole sum advanced on mortgage on land throughout the Colony in any one year.

No. 264.—Mortgages of Land registered :—

| Year. | No. of Mortgages | Amount. | Year. | No. of Mortgages | Amount. |
|---|---|---|---|---|---|
| | | £ s. d. | | | £ s. d. |
| 1876 | 2,126 | 1,402,848 1 9 | 1882 | 4,159 | 4,924,595 10 1 |
| 1877 | 1,758 | 1,308,774 11 3 | 1883 | 4,088 | 5,859,472 0 0 |
| 1878 | 2,440 | 1,981,481 2 4 | 1884 | 4,653 | 5,620,420 19 1 |
| 1879 | 2,809 | 2,461,964 3 2 | 1885 | 7,618 | 11,360,108 1 9 |
| 1880 | 2,995 | 4,048,951 17 8 | 1886 | 6,933 | 7,570,210 8 5 |
| 1881 | 4,505 | 5,268,449 0 1 | | | |

## *LOCAL GOVER[illegible]*

**Incorporation of districts into boroughs.**

For purposes of local governmen[illegible] passed in 1867, which permitted the [illegible] districts having a population of not [illegible] boroughs, and of districts of not more [illegible] municipal districts, provided the popu[illegible] Under the provisions of this Act, 119 [illegible] rated, 54 of these being styled borough[illegible] [illegible]ipal districts. The area embraced by these districts is [illegible] large as compared with the total area of the Colony, but within their limits, and those of the city of Sydney, dwelt in 1886, about 595,000 persons, or rather more than 59·3 per cent. of the inhabitants of the Colony.

**Value of property in Municipalities.**

The value of property, as assessed for municipal purposes, was £96,547,968 in 1886, but this sum somewhat understates the actual capital value, as much of the improved land, especially in suburban and country districts, is returned at far below its real worth. Taking all municipalities this understating amounts to at least 10 per cent., so that the actual value of property within incorporated districts is not less than £106,250,000. If, however, the nominal capital values, as returned by the Municipal authorities themselves, are taken, the capital and annual ratable value of property in all districts during the past five years was as under.

No. 265.—**Annual and Capital Value of Ratable Property in the Municipalities of the Colony during the years 1882–86 :—**

| Municipalities. | 1882. | | 1883. | |
|---|---|---|---|---|
| | Annual value. | Capital value. | Annual value. | Capital value. |
| | £ | £ | £ | £ |
| City of Sydney .............. | 1,490,357 | 29,807,140 | 1,671,493 | 36,772,840 |
| Suburbs of Sydney .......... | 1,314,919 | 19,749,107 | 1,449,947 | 20,676,070 |
| Country Municipalities ...... | 1,064,560 | 11,697,199 | 1,266,502 | 14,425,195 |
| | [illegible]869,836 | 61,253,446 | 4,387,942 | 71,874,105 |

| Municipalities. | [illegible] | | [illegible]85. | | 1886. | |
|---|---|---|---|---|---|---|
| | [illegible] | [illegible] | [illegible] | Capital value. | Annual value. | Capital value. |
| | [illegible] | [illegible] | [illegible] | £ | £ | £ |
| [illegible] | [illegible] | [illegible] | [illegible] | 40,704,700 | 1,905,888 | 41,929,520 |
| Suburbs of Sydney ...... | [illegible] | [illegible] | [illegible] | 29,410,787 | 2,289,685 | 32,960,020 |
| Country Municipalities .. | 1 524,218 | 17,661,[illegible] | [illegible] | [illegible]1,828,805 | 1,727,951 | 21,657,828 |
| | 5,014,120 | 80,303,361 | 5,490,676 | 91,944,292 | 5,923,524 | 96,547,968 |

ERRATUM.

Page 432—18 lines from bottom—for [illegible] acres read [illegible] square miles.

The city of Sydney embraces an area of 2,000 acres, and contains 22,140 houses, occupied by 132,846 persons. The number of rate-payers, however, is only 7,946. The extent of streets and lanes within the city boundaries is 100 miles, and nearly all the roadways are thoroughly formed, kerbed, and bordered by pavements of tarred stone, or other suitable material; while 232,320 square yards of carriage-way have been laid with wood blocks. The water-works at present in operation, will shortly be entirely superseded by a splendid stream derived from the Nepean and Cataract Rivers, which will give

City of Sydney

an immediate delivery of 17,000,000 gallons, capable of being raised to 50,000,000 gallons daily. The whole city is at present supplied with water from Botany, and about 120,000 persons in the suburbs also derive their supply from the same source, the average daily consumption being 6,300,000 gallons, or 25 gallons per head.

Sewerage and water supply.

The extent of sewerage in the city of Sydney is 61¾ miles, so that by far the larger part of it is sewered. The sewerage and water-works were originally commenced in 1854. On the former £893,203 has been expended, and of this £38,384 was expended in 1886. The cost of the water supply works, including reticulation, was £1,640,795, £97,610 being expended in 1886. The money for these works has been found partly by Government loan and Corporation debentures, and partly by the water and sewerage rates received.

City revenue and expenditure.

The city revenue during 1886, apart from the water and sewerage rates, was £192,586, and the expenditure £203,488. The revenue from the water-works amounted to £85,338, and that from the sewerage to £38,152. The annual value of city property amounted to £1,490,357 in 1882, and to £1,905,888 in 1886, showing an increase in four years of £415,531, which, amounting as it does to nearly 6½ per cent. per annum, cannot but be looked upon as very considerable.

Other incorporated portions of the Colony.

The remaining portions of the Colony, which have been incorporated, contain 462,000 people dwelling in 84,085 houses. The annual revenue, exclusive of loans, reached £406,756 during 1886, against which there was an expenditure of £493,079; part of this, however, was from loans. The amount of revenue received from various sources was :—

| | |
|---|---|
| Ordinary rate | £175,737 |
| Lighting | 39,284 |
| Subscriptions | 15,547 |
| Endowment | 116,622 |
| Other sources | 59,566 |
| Total | £406,756 |

The expenditure, grouped under the different heads, was :—

| | |
|---|---|
| Salaries and office expenses | £37,293 |
| Public works | 303,313 |
| Lighting | 34,406 |
| Miscellaneous | 69,127 |
| Interest on loans | 25,358 |
| Repayment of loans | 23,582 |
| Total | £493,079 |

Municipal loans.

The amount owing by the various municipalities on 1st March, 1887, not including the city of Sydney, was £440,149, of which £133,695 was borrowed during the previous year. This indebtedness amounts to rather more than two and a half times the ordinary rates obtained during the year. Against this they have assets amounting approximately to one million and three-quarters sterling, distributed as follows :—

| | |
|---|---|
| Value of made roads and streets | £1,500,000 |
| Buildings | 175,000 |
| Other surplus assets over liabilities | 75,000 |
| Total | £1,750,000 |

Extension of local government.

It is proposed by a measure now before Parliament to extend the system of local government over the remaining portions of the Colony. This is on all sides deemed a very necessary step, as under the present system there is no certainty that the expenditure of the Government on purely local works is at all times equitable. Leaving out of consideration the expenditure on works of national importance, the Government during the past 27 years expended no less than £15,686,183 on works of a purely local character, not including school buildings. Of this sum £10,487,529 was expended in the country districts, and £5,198,654 in the metropolis. The division of the Colony into local government districts will not necessarily be followed by an entire stoppage of the direct expenditure in works of merely local interest by the central Government, but the larger portion of the works now undertaken by Government will be

Expenditure by Government for local purposes.

left to the local authorities, who, having to directly provide part of the expenditure, will probably see that it is laid out to the best advantage. Adopting the two divisions of metropolis and country, already mentioned, the expenditure in each since 1860 is given below. As regards the metropolitan expenditure, nearly half the total—viz., £2,460,107—was expended on water supply and sewerage works, which are sources of revenue. In the country districts the amount expended on similar works was only £488,796.

No. 266.—Amounts expended on Local Public Works in the Country Districts and Metropolis during 1860-86, with Amount per Head of Population:—

| Year. | Country districts. | | | | Metropolis. | | | | Total. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Expenditure | Rate per head. | | | Expenditure | Rate per head. | | | Expenditure | Rate per head | | |
| | £ | £ | s. | d. | £ | £ | s. | d. | £ | £ | s. | d. |
| 1860 | 65,861 | 0 | 5 | 4 | 21,240 | 0 | 4 | 5 | 87,101 | 0 | 5 | 1 |
| 1861 | 103,250 | 0 | 8 | 0 | 34,709 | 0 | 7 | 1 | 137,959 | 0 | 7 | 9 |
| 1862 | 118,131 | 0 | 8 | 11 | 40,612 | 0 | 8 | 5 | 158,743 | 0 | 8 | 9 |
| 1863 | 94,825 | 0 | 6 | 11 | 15,842 | 0 | 3 | 3 | 110,667 | 0 | 5 | 11 |
| 1864 | 133,591 | 0 | 9 | 4 | 17,352 | 0 | 3 | 6 | 150,943 | 0 | 7 | 10 |
| 1865 | 109,835 | 0 | 7 | 5 | 12,168 | 0 | 2 | 4 | 122,003 | 0 | 6 | 0 |
| 1866 | 92,796 | 0 | 6 | 0 | 9,963 | 0 | 1 | 9 | 102,759 | 0 | 4 | 11 |
| 1867 | 137,405 | 0 | 8 | 7 | 37,621 | 0 | 6 | 4 | 175,026 | 0 | 8 | 0 |
| 1868 | 163,819 | 0 | 9 | 11 | 33,701 | 0 | 5 | 5 | 197,520 | 0 | 8 | 8 |
| 1869 | 190,810 | 0 | 11 | 1 | 21,460 | 0 | 3 | 4 | 212,270 | 0 | 9 | 0 |
| 1870 | 124,540 | 0 | 7 | 0 | 32,347 | 0 | 4 | 10 | 156,887 | 0 | 6 | 5 |
| 1871 | 169,239 | 0 | 9 | 4 | 18,009 | 0 | 2 | 7 | 187,248 | 0 | 7 | 4 |
| 1872 | 129,003 | 0 | 6 | 9 | 40,524 | 0 | 5 | 8 | 169,527 | 0 | 6 | 5 |
| 1873 | 230,385 | 0 | 11 | 7 | 51,056 | 0 | 6 | 10 | 281,441 | 0 | 10 | 4 |
| 1874 | 265,003 | 0 | 13 | 0 | 48,211 | 0 | 6 | 3 | 313,214 | 0 | 11 | 1 |
| 1875 | 375,819 | 0 | 17 | 9 | 47,781 | 0 | 6 | 0 | 423,600 | 0 | 14 | 5 |
| 1876 | 415,025 | 0 | 19 | 0 | 68,710 | 0 | 8 | 2 | 483,735 | 0 | 16 | 0 |
| 1877 | 497,184 | 1 | 2 | 0 | 60,141 | 0 | 6 | 10 | 557,325 | 0 | 17 | 8 |
| 1878 | 643,912 | 1 | 7 | 4 | 86,373 | 0 | 9 | 2 | 730,285 | 1 | 2 | 2 |
| 1879 | 794,983 | 1 | 12 | 5 | 165,856 | 0 | 16 | 6 | 960,839 | 1 | 7 | 10 |
| 1880 | 793,966 | 1 | 11 | 0 | 201,734 | 0 | 18 | 10 | 995,700 | 1 | 7 | 5 |
| 1881 | 583,471 | 1 | 1 | 10 | 357,182 | 1 | 11 | 4 | 940,651 | 1 | 4 | 9 |
| 1882 | 704,892 | 1 | 5 | 5 | 702,696 | 2 | 18 | 1 | 1,407,588 | 1 | 15 | 5 |
| 1883 | 758,052 | 1 | 6 | 3 | 931,615 | 3 | 12 | 0 | 1,689,667 | 2 | 0 | 6 |
| 1884 | 940,858 | 1 | 11 | 3 | 669,209 | 2 | 8 | 0 | 1,610,067 | 1 | 16 | 6 |
| 1885 | 981,951 | 1 | 11 | 6 | 704,636 | 2 | 6 | 9 | 1,686,587 | 1 | 16 | 2 |
| 1886 | 868,923 | 1 | 6 | 4 | 767,906 | 2 | 7 | 6 | 1,636,829 | 1 | 13 | 5 |

# PART XV.

## Instruction, Science, and Religion.

### *PRIMARY EDUCATION.*

Early system of subsidies.

THE history of primary education in New South Wales is naturally divided into four periods. During the first period, which lasted until 1848, the system in force was purely denominational, the Government granting to the heads of religious bodies assistance in proportion to the amount expended by them for educational purposes. No provision was made for the establishment of schools entirely under State control, and considerable dissatisfaction was the result. As early as 1834, attempts were made to modify the system in force, and five years later a grant was made with the object of securing undenominational education for the children of those who preferred it. It was not, however, until 1844 that any definite steps were taken in this direction. In that year a Committee of the Legislative Council reported in favour of the adoption of the Irish National School system, and, in accordance with this recommendation, an Act was passed constituting two Boards, to one of which was entrusted the administration of denominational education, and to the other the undenominational, or, as it was called, the National system. This anomaly of two rival Boards existed for eighteen years, until it was abolished by the passing of the Public Schools Act of 1866. This Act also provided for two distinct classes of schools, though all schools receiving aid from the State were nominally under the control of a Board appointed by the Government, and styled the Council of Education. The Public Schools were entirely administered by this Board, but the denominational schools were partly governed by the various religious bodies by whom they had been founded. Although the system established by the Act

First grant in aid of undenominational education.

The Public Schools Act of 1866.

of 1866 was essentially one of transition, education nevertheless made considerable progress during the years of its administration. But it was found impossible to maintain this dual system, not only on account of its intrinsic defects, but because the principle of granting State aid to religious schools was manifestly repugnant to the feelings of the majority of the people.

State aid to denominations abolished.

In 1879-80, State aid to denominational education was at length abolished. By an Act passed under the auspices of Sir Henry Parkes, which received the Royal assent on the 16th April, 1880, the entire educational system of the Colony was remodelled, and amongst other important provisions, it was enacted that State grants to denominational schools should cease with the year 1882. So great a change was not wrought without much opposition, and many denominational schools which existed at the period of the withdrawal of State aid were maintained by the religious bodies to which they belonged. Although withdrawing aid from denominational schools, the Act of 1880 does not entirely banish religious instruction from State schools. On the contrary, it provides that one hour each day shall be available, during which the authorized teachers of any church may impart religious instruction to the children of their faith, provided the parents of the children are agreeable thereto. The privilege thus afforded is, to some slight extent, taken advantage of by the clergy of all denominations.

Instruction compulsory.

The second great principle of the Act is that instruction shall be compulsory for all children between the ages of six and fourteen years. By section 20, it is made obligatory upon the parents or guardians of all children between the specified ages to cause them to attend school for a period of at least seventy days in each half-year, under certain prescribed penalties. Though compulsory, instruction is not altogether free. All parents in a position to contribute towards their children's education are required to pay, in State schools, the nominal sum of three-pence per week for each child, but, in cases where inability to pay even this small sum can be fairly pleaded, the Minister, or the Public School Board of the district, has power to remit the fee entirely, so that no child is denied the benefits of that instruction which the State provides. Other facilities are granted to children attending school. They are permitted to travel free on the State railways as far as the school nearest their residence, a concession of no little importance in the country districts. The Act makes no attempt to interfere with the right of parents to send their children to whatever school they choose, whether supported by the State or by private persons, provided the attendance specified by the Act is given. No impediment is offered to the establishment of private schools, but no State assistance is given to them, either directly or indirectly.

**Liberal provisions of the Act.**

**Secondary education.**

The care of the State is not entirely devoted to primary instruction, for the claims of secondary education are fully recognized, and the Act of 1880 provides Superior Public Schools, and High Schools, for children of both sexes, wherein such education may be obtained as will fit the pupils for commercial or professional callings, or the higher educational curriculum of the University. Here, however, the direct assistance of the State terminates, although indirectly it goes a great deal further and provides ample endowments for University education.

**Progress of education.**

Great as has been the material progress of the Colony, its intellectual advancement has been much more rapid. In the records of the marriage registers signed by marks, a most accurate gauge of educational progress will be found. The earliest official record of marriages was for the year 1857, when out of 5,804 persons married 1,646 or 28·36 per cent. were unable to sign the marriage register. During 1886, the number of such persons was only 622, or 3·98 per cent. of the total number married. A generation has passed away during the period embraced by the following table, and the progress shown thereby cannot fail to be interesting.

No. 267.—Progress of Education in New South Wales, as shown by the Number of Persons signing Marriage Register with Marks :—

| Year. | Persons married. | Per-centage signing with marks. | Number signing with marks. | Year. | Persons married. | Per-centage signing with marks. | Number signing with marks. |
|---|---|---|---|---|---|---|---|
| 1857 | 5,804 | 28·36 | 1,646 | 1872 | 7,850 | 13·62 | 1,069 |
| 1858 | 5,984 | 20·86 | 1,248 | 1873 | 8,768 | 14·26 | 1,252 |
| 1859 | 6,590 | 26·86 | 1,770 | 1874 | 8,686 | 11·96 | 1,039 |
| 1860 | 5,890 | 26·46 | 1,559 | 1875 | 9,210 | 12·26 | 1,129 |
| 1861 | 6,444 | 24·60 | 1,585 | 1876 | 9,260 | 10·47 | 970 |
| 1862 | 6,652 | 25·01 | 1,664 | 1877 | 9,988 | 9·76 | 975 |
| 1863 | 6,628 | 22·69 | 1,504 | 1878 | 10,634 | 8·10 | 863 |
| 1864 | 6,960 | 22·70 | 1,580 | 1879 | 10,782 | 7·58 | 818 |
| 1865 | 7,156 | 22·06 | 1,579 | 1880 | 11,144 | 6·66 | 743 |
| 1866 | 6,924 | 21·63 | 1,498 | 1881 | 12,568 | 6·94 | 872 |
| 1867 | 6,852 | 18·84 | 1,291 | 1882 | 13,896 | 5·63 | 782 |
| 1868 | 7,472 | 20·14 | 1,505 | 1883 | 14,810 | 6·10 | 903 |
| 1869 | 7,598 | 19·19 | 1,458 | 1884 | 14,964 | 5·23 | 783 |
| 1870 | 7,696 | 18·23 | 1,403 | 1885 | 15,236 | 4·74 | 723 |
| 1871 | 7,906 | 16·96 | 1,341 | 1886 | 15,622 | 3·98 | 622 |

**Marvellous progress of education.**

The progress exhibited in the above table is marvellous. The residuum of population not yet educated is already very small, and, moreover, of the 622 persons using marks a large proportion were not born in New South Wales, but arrived in this Colony too late in life to avail themselves of its educational system. The proportion of persons using marks is somewhat higher in this Colony than in any other member of the group, except Queensland. This is in no sense due to the superiority of the educational system of those colonies, but rather to the number of immigrants attracted to New South Wales, amongst whom there will always be found many persons unable to write.

Illiteracy in other Colonies.

Figures respecting all the colonies are not available, and in most of them the particulars as to the number of persons signing with marks cannot be procured later than 1884. In the year mentioned, the degree of illiteracy, as disclosed by the marriage registers, was :—

| | Per-centage signing with marks. |
|---|---|
| New South Wales | 5·23 |
| Do (1886) | 3·98 |
| Victoria | 2·66 |
| Queensland | 5·77 |
| South Australia | 3·33 |
| New Zealand | 3·63 |

Children instructed in former years.

Only an imperfect comparison can be made as to the number of children under instruction during past years, as the number in actual attendance cannot be distinguished from the number enrolled. The following table, however, gives the number of schools and enrolled scholars for fifty years, and though it cannot be taken as absolutely correct, it may be relied on as fairly indicative of the educational progress of the Colony.

No. 268.—Progress of Education during fifty years :—

| Year. | Population of the Colony. | No. of schools. | Children enrolled. | Proportion of population enrolled. |
|---|---|---|---|---|
| | | | | per cent. |
| 1836 | 77,096 | 85 | 3,391 | 4·40 |
| 1841 | 149,669 | 209 | 9,632 | 6·44 |
| 1846 | 196,704 | 394 | 19,033 | 9 68 |
| 1851* | 197,168 | 423 | 21,120 | 10·71 |
| 1856 | 286,873 | 565 | 29,426 | 10·26 |
| 1861 | 357,978 | 849 | 37,874 | 10·58 |
| 1866 | 428,813 | 1,155 | 59,594 | 13·90 |
| 1871 | 517,758 | 1,450 | 77,889 | 15·04 |
| 1876 | 614,181 | 1,629 | 131,620 | 21·43 |
| 1881 | 778,690 | 2,066 | 166,536 | 21·40 |
| 1886 | 1,001,966 | 2,833 | 226,860 | 22·64 |

* The separation of Victoria took place in this year.

The number of children given in the above table as enrolled in the various schools exceeds, in almost every case, the actual school attendance, as the gross enrolment for the year is given, and not the mean for each quarter. The latter information cannot be obtained except for recent years, but the figures as they stand give a basis of comparison, which is not without its value.

Enrolment of children.

The following table shows the gross enrolment of distinct children during the six years which closed with 1886, as well as the quarterly enrolments, in all the schools of the Colony. The last column may be taken as giving the nearest approximation to the number of children actually under tuition in State and private schools.

No. 269.—Schools, Teachers, Scholars, 1881–86 :—

| Year. | Schools. | Teachers. | Scholars. | |
|---|---|---|---|---|
| | | | Gross enrolment. | Mean quarterly enrolment. |
| 1881 | 2,066 | 3,772 | 166,536 | 145,936 |
| 1882 | 2,161 | 4,154 | 188,507 | 156,768 |
| 1883 | 2,315 | 4,543 | 189,983 | 164,270 |
| 1884 | 2,535 | 4,860 | 202,519 | 174,544 |
| 1885 | 2,666 | 5,267 | 218,232 | 183,873 |
| 1886 | 2,833 | 5,659 | 226,860 | 193,978 |

Number of children of school age.

The number of children of school age—that is to say, from five to fifteen years—during 1886, was probably not less than 244,985. Of this number 155,212 were receiving instruction in State schools, and 38,766 in private schools, or in all 193,978 ; while the remainder, numbering 51,007, were either receiving no instruction, or were being taught at home. No reliable estimate of the number of children under home tuition can be made, neither is it possible to determine the number of those who have ceased to attend school before reaching their fifteenth year, but it is very probable that considerable numbers are to be found in both classes.

Compulsory clauses not strictly enforced.

Owing to the sparseness of the population in nearly all the country districts of the Colony, the compulsory clauses of the Instruction Act cannot be strictly enforced. Nevertheless, the number of children growing up in absolute ignorance is by no means great, and, though the proportion of such children cannot be even approximately determined, there is sufficient evidence to warrant the conclusion that it is steadily decreasing. At the last three census the proportion of children from five to ten years who could read and write were in every ten thousand as under:—

| | 1861. | 1871. | 1881. |
|---|---|---|---|
| Read and write | 2,331 | 3,527 | 4,475 |
| Read only | 3,375 | 2,717 | 1,961 |
| Unable to read | 4,294 | 3,756 | 3,564 |

Taking the children from ten to fifteen years, the comparison is still more satisfactory.

| | 1861. | 1871. | 1881. |
|---|---|---|---|
| Read and write | 6,964 | 7,861 | 8,929 |
| Read only | 1,879 | 1,238 | 573 |
| Unable to read | 1,157 | 901 | 498 |

**Progress of education amongst children.**

The steady decrease in the proportion of illiterate children from 1861 to 1871, and from 1871 to 1881, is plainly visible from the above tables, and there can be little doubt that this satisfactory decrease has since continued.

## *PUBLIC INSTRUCTION.*

**Schools when present Act came into force.**

When the present Public Instruction Act came into operation, on the 30th April, 1880, the Council of Education ceased to exist, and handed over to the new administration the schools, until then under its control. At the date mentioned, there were maintained, or subsidized by the Government, 1,220 schools, attended by 101,534 scholars, thus distributed:—

| | No. of Schools. | No. of Pupils. |
|---|---|---|
| Public | 705 | 68,823 |
| Provisional | 313 | 8,312 |
| Half-time | 97 | 1,683 |
| Denominational | 105 | 22,716 |
| | 1,220 | 101,534 |

At the close of 1882, the connection of the denominational schools with the State ceased, and the subsequent year is marked, as was to have been expected, by a considerable falling off in the

Enrolment since passing the Act.

number of children who were receiving their education at the expense of the State. The check only operated for a short period, as the year 1884 shows a recovery of more than the ground lost. This will be seen by the following table which refers to State supported schools only:—

No. 270.—Enrolment and Attendance of Children at State Schools—1880–86.

| Year. | Gross enrolment. | Quarterly enrolment. | Average attendance. |
|---|---|---|---|
| 1880 | * | 111,277 | 72,969 |
| 1881 | 146,106 | 125,506 | 82,890 |
| 1882 | 166,611 | 134,872 | 90,944 |
| 1883 | 155,918 | 130,205 | 88,546 |
| 1884 | 167,134 | 139,159 | 95,215 |
| 1885 | 180,929 | 146,570 | 100,462 |
| 1886 | 186,126 | 153,244 | 105,538 |

* Not ascertained.

Increase in enrolment.

Since the withdrawal of aid from denominational schools, the increase in the average quarterly enrolment at State schools has been 18 per cent., the increase in each year being:—

| | | |
|---|---|---|
| 1884 | 6·88 | per cent. |
| 1885 | 5·32 | „ |
| 1886 | 4·55 | „ |

Number of schools.

The number of schools under the direct control of the Department, during 1886, was 2,170, thus classified:—

| | |
|---|---|
| High Schools | 8 |
| Public Schools—mixed | 1,481 |
| „ Two departments | 39 |
| „ Three departments | 67 |
| Provisional Schools | 328 |
| Half-time Schools | 169 |
| House-to-house | 58 |
| Evening Schools | 20 |
| Total | 2,170 |

**Number of Teachers.**

The teachers during the year numbered 3,756, viz., 1,869 males and 1,887 females.

| | Males. | Females. |
|---|---|---|
| In charge of departments | 1,391 | 843 |
| Assistants | 126 | 287 |
| Pupil Teachers | 310 | 621 |
| Others | 42 | 136 |
| | 1,869 | 1,887 |

The average number of pupils on the basis of the mean quarterly enrolment per teacher was therefore 40·8, and the average attendance per teacher, 28·1, while the average enrolment of children per school was 70·6.

**Public School curriculum.**

The curriculum of the Public Schools of New South Wales provides merely for imparting to children a sound course of primary education, and the elements of those sciences which form the basis of higher courses of education, scientific or technical. The State provides separately the necessary facilities for acquiring technical knowledge, under a system of training recently introduced, about which more will be said further on.

**Training of Teachers.**

The staff of male and female Public School teachers is trained in the normal schools of the Colony—the Fort-street training school for male teachers, and the Hurlstone training school for female teachers. These establishments are under the strictest supervision, and improvements are made every year, in order to keep pace with the most modern systems of training. Admission is obtainable to these schools by examination, and the students are almost exclusively recruited from the ranks of the pupil-teachers of both sexes. These pupil-teachers are selected with great care, as they are required to undergo severe examinations, and must also satisfy the department as to their physical aptitude and the soundness of their constitutions, in view of the arduous nature of the duties they are called upon to perform.

During the year 1886, the number of teachers in the service of the Department of Public Instruction was, as already stated, 3,756. The teachers obtain promotion only after passing a series of examinations, which are so framed as to efficiently test their progress in general capacity. There are ten classes of teachers, the emoluments of the classes ranging from £96 to £500 per annum (including residence) for male teachers, and from £96 to £326 per annum for female teachers.

Public School Boards.

The local supervision of the Public Schools of the Colony is placed in the hands of Public School Boards appointed in the various districts of the Colony, under the provisions of the Public Instruction Act. These boards exercise a general oversight over the Public Schools in their districts, but cannot interfere with the internal discipline or management of the schools, which remain under the direct control of the Minister for Public Instruction, and the inspectors and other officers of his department.

Average cost of education.

The average cost per child of the average yearly attendance in the Public Schools has greatly varied, as will be seen by the following table, which gives the averages for the six years, 1881 to 1886, inclusive :—

No. 271.—The average Cost per Child of the Average Attendance.

| Year. | For school premises. | For the maintenance of schools. | For administration, including the amount paid as retiring allowances. | Total. |
|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| 1881 | 1 4 9¾ | 3 15 3 | 0 14 3¾ | 5 14 4½ |
| 1882 | 2 10 2¾ | 3 15 1¾ | 0 10 8½ | 6 16 0¾ |
| 1883 | 4 8 3¾ | 4 2 0¼ | 0 15 3½ | 9 5 7¼ |
| 1884 | 3 3 11 | 4 4 2¾ | 0 14 5¾ | 8 2 7½ |
| 1885 | 1 15 5¼ | 4 3 7 | 0 13 1¼ | 6 12 1½ |
| 1886 | 1 9 4¾ | 4 1 6 | 0 13 1¼ | 6 4 0 |

In the Public Schools of New South Wales the cost per child is greater than in those of Victoria and the other principal Australian Colonies, the figures for which in 1885 were as follows :—

| State Schools. | Total cost per child of the average attendance. |
|---|---|
| New South Wales | £6 12 1½ |
| Victoria | 6 2 2¼ |
| South Australia | 5 7 0 |
| Queensland | 5 7 8½ |

Expenses incidental to starting present Act.

It must be borne in mind, however, that a considerable outlay was needed to build the necessary school-houses after the Act of 1880 became law. Under this Act the expenses contingent upon the necessity of obtaining efficient results, in a country so sparsely populated as New South Wales, were unavoidably great. School-houses had to be built, teachers required training, and the whole machinery for providing schools and teachers in so many parts of the country where there were none but denominational schools, and frequently no educational establishments at all, had to be started. To these initial expenses is due, in a great measure, the relatively high cost of public education in the Colony of New South Wales. It is natural, however, to expect that this cost will decrease in the future, as the school-houses have been built with due regard to the increase in the number of scholars which must be expected in a young, prosperous, and growing colony. It may be added that most of the school-buildings are of such a character as would do credit to the most advanced countries in the world, the greatest care being taken to have them replete with all the modern improvements which the experience of centuries has suggested in older communities.

Comparative cost of Education.

When comparing the average cost of education per child in attendance in New South Wales with that of the neighbouring colony of Victoria, for instance, it must be borne in mind that the considerably smaller extent of the territory of the latter, and the greater travelling facilities, which a railway system proportionately much larger offers in that colony, must necessarily reduce the cost of education. In South Australia and Queensland, especially in the former of these two colonies, settlement is confined to certain districts in which the population is more compact, whilst the whole of the territory of New South Wales, if we except the extreme west, may be regarded as everywhere settled, at least to such an extent as to necessitate the extension of the Public School system throughout the greater part of the Colony. But the spread of public instruction is considered so pre-eminently important an object, that the Legislature has at all times expressed its readiness to make every sacrifice, and spare no expense to render the system of national education which it adopted in 1880 efficacious. The following table will show the total amount expended by the State since the year 1881, and the annual amount per head of population provided for the primary education of the children of the Colony:—

### No. 272.—Amount provided by the State for the Primary Education of the Children of the Colony.

| Year. | Amount. | Per head of total population. | Year. | Amount. | Per head of total population. |
|---|---|---|---|---|---|
| | £ | s. d. | | £ | s. d. |
| 1881 | 474,157 | 12 7 | 1884 | 774,357 | 17 7 |
| 1882 | 618,800 | 15 7 | 1885 | 663,696 | 14 3 |
| 1883 | 821,852 | 19 8 | 1886 | 654,410 | 13 1 |

**Details of Expenditure on Education.**

This statement would not be complete if some details were not furnished showing under what principal heads this expenditure was incurred, and the amount of school fees received during the same period :—

| Year. | Number of Schools. | Number of Pupils. | The State expenditure. | | | | |
|---|---|---|---|---|---|---|---|
| | | | On school premises. | On maintenance of Schools including Administration &c. | Total. | Less School Fees. | Net State Expenditure. |
| | | | £ | £ | £ | £ | £ |
| 1881 | 1,667 | 146,106 | 102,903 | 371,254 | 474,157 | 46,347 | 427,810 |
| 1882 | 1,795 | 166,611 | 228,401 | 390,399 | 618,800 | 51,312 | 567,488 |
| 1883 | 1,706 | 155,918* | 391,000 | 430,852 | 821,852 | 51,427 | 770,425 |
| 1884 | 1,912 | 167,134 | 304,383 | 469,974 | 774,357 | 56,766 | 717,591 |
| 1885 | 2,046 | 180,929 | 178,001 | 485,695 | 663,696 | 58,925 | 604,771 |
| 1886 | 2,170 | 186,126 | 155,072 | 499,338 | 654,410 | 63,164 | 591,246 |
| Total 6 years expenditure | | | 1,359,760 | 2,648,012 | 4,007,672 | 327,941 | 3,679,331 |

* Certified Denominational Schools were discontinued at the close of 1882.

## *PRIVATE SCHOOLS.*

Attendance increasing.

The attendance at private schools has increased nearly twofold since 1882. This is entirely due to the withdrawal of aid from denominational schools. At the close of the year mentioned there were 124 denominational schools under the control of the Education Department, with 346 teachers and 29,651 scholars. Many of these schools ceased to exist immediately on the withdrawal of State aid, and the children by whom they were attended were transferred for the most part to the ordinary Public Schools of the Colony. Some of the schools, however, were still maintained, chiefly those connected with the Roman Catholic Church, and thenceforth appear in the returns as private schools. The increase in the number of private schools during 1883 was 97, and the increase in the attendance of children was 12,361, so that, at the lowest computation, 27 denominational schools were immediately closed, and 17,290 children transferred to Public Schools. The following table gives the particulars respecting private schools from 1881 to 1886 :—

Increase in private schools.

No. 273.—Private Schools.

| Year. | Schools. | Teachers. | Scholars. | Year. | Schools. | Teachers. | Scholars. |
|---|---|---|---|---|---|---|---|
| 1881 | 507 | 1,129 | 18,317 | 1884 | 611 | 1,601 | 33,607 |
| 1882 | 491 | 1,154 | 19,746 | 1885 | 611 | 1,654 | 35,967 |
| 1883 | 588 | 1,473 | 32,107 | 1886 | 647 | 1,808 | 38,766 |

Classification of private schools.

Dividing the private schools of the Colony into their respective classes there were in operation during 1886 :—

| | Schools. | Teachers. | Scholars. |
|---|---|---|---|
| Undenominational | 370 | 754 | 10,143 |
| Church of England | 56 | 143 | 3,373 |
| Roman Catholic | 215 | 896 | 25,020 |
| Wesleyan | 1 | 5 | 46 |
| Presbyterian | 3 | 8 | 99 |
| Lutheran | 2 | 2 | 85 |
| Total | 647 | 1,808 | 38,766 |

Roman Catholic Schools.

Not a few of the schools returned as undenominational are religious schools, though no definite form of religious opinions is inculcated therein. Of distinctly religious schools, those of the Roman Catholic Church comprise the great majority, numbering 77·6 per cent. of professedly denominational schools, and 87·4 per cent. of the scholars educated therein. The number of pupils attending these schools was not ascertained for the years preceding 1886. On the withdrawal of State assistance from denominational schools in 1882 there were in operation under the Department of Education 75 Roman Catholic Schools, attended by 16,595 pupils, while in 1886 there were 215 schools, attended by 25,020 pupils. There were, however, some Roman Catholic Schools prior to 1882 not receiving aid from the State, and, on the other hand, many of the schools which were closed in 1882 have not since been opened.

Church of England Schools

The Church of England is the only other religious body maintaining schools of importance. During 1886, such schools numbered 56, and were attended by 3,373 pupils. As with the Roman Catholic Schools, it is impossible now to determine whether these schools have increased of late years; but it may be mentioned that at the end of 1882 there were in existence 42 Church of England Schools, frequented by 11,927 children.

## *HIGHER EDUCATION.*

Curriculum of High Schools.

It has already been mentioned that the State has made provision, for higher education, by the establishment of High Schools in the metropolis and the principal centres of population. The curriculum of these schools is of such a character as to enable students to complete the course of instruction, the basis of which they acquired in the Public Schools, and, if they so wish, to prepare themselves for the University examinations. Admission to these schools is by examination only. There were at the close of the year 1886, six High Schools for boys and girls, and the gross enrolment for that year was 393 boys and 295 girls, making a total of 688 children.

Superior Public Schools. Superior Public Schools, in which the subjects taught embrace, in addition to the ordinary course prescribed for Public Schools, such other subjects as will enable the students to go up for the senior and junior public examinations, are also established. There were 31 of these schools in existence at the end of 1886. They supply a want long felt in the community, and their number increases considerably year by year.

### *STATE-AIDED EDUCATIONAL ESTABLISHMENTS.*

State-aided schools. In addition to the various classes of Public Schools maintained at the State's expense, and directly controlled by the officers of the Department of Public Instruction, there exist several institutions of an educational character which receive an annual subsidy from the Government. The most important of these is the Sydney Grammar School, which is one of the principal schools in the Colony, and many men who have made their mark in the professions upon which they entered at one time occupied its benches. In 1886, the number of pupils enrolled was 513, the average quarterly attendance being 405. Towards maintaining this school the Colonial Treasury contributed the sum of £2,800.

Orphan Schools. Previous to the year 1886, two orphan schools, situated at Parramatta, and under the care of the clergy of the Church of England and the Roman Catholic Church received State aid. At the end of 1885, 45 children remained in the former institution, viz., 34 boys and 11 girls, and the cost of the establishment amounted to £2,301 3s. In the latter, 63 children were cared for during the same year, at a cost of £2,277 19s. 9d.

Deaf and Dumb and Blind. The Institution for the Deaf and Dumb and the Blind, principally supported by private contributions, received a State grant of £450, and, in 1886, a sum of £90 in addition as school fees for Government pupils. At the close of 1886, there were in this institution 81 children, 67 being under 14 years, and 14 over that age.

Reformatories

Besides these establishments, the State maintains two reformatories or disciplinary institutions, one for girls—the industrial school at Biloela, and the nautical school-ship "Vernon" for boys. In the former establishment there were, at the end of 1886, 106 inmates, and the cost of maintaining the school amounted, in that year, to £2,818 14s. 5d. On board the "Vernon" 202 boys were trained, under excellent management, at a yearly cost to the State of £5,189. The results obtained in these two establishments have hitherto been of a very successful character, many children having been reclaimed from a depraved life and turned out, after a course of some years' training, useful members of society.

## *THE UNIVERSITY.*

The University of Sydney was founded in the year 1850 for the purpose of providing a higher and more complete education, which, until that year, could be obtained only in England, and at a cost which rendered the learned professions extremely difficult of access to any but the wealthy. By the charter granted to the University of Sydney, the degrees there obtained entitle the holders to the same privileges and status as the holders of degrees granted by the Universities of the United Kingdom. The governing body of the Sydney University consists of a Chancellor and a Senate of sixteen members, elected by the graduates. It receives an annual contribution from the State which, in 1886, amounted to £17,500. This endowment is susceptible of being increased at the will of Parliament, and the Legislature is so convinced of the necessity of improving the status of education in the Colony that no difficulty is ever experienced in obtaining from Parliament the necessary funds for improving the teaching apparatus, increasing the staff of professors, creating necessary chairs, and, in short, maintaining the University on a footing of equality with similar institutions in other parts of the world. The means at the disposal of the Senate of the University

Annual endowment.

are increased by students' fees, and, by private bequests and donations, which during the past few years amounted to very considerable sums of money.

Challis bequest.

In the year 1880, a legacy, the value of which now amounts to about £200,000, was left to the University by Mr John Henry Challis, subject to certain conditions, which, having now been fulfilled, will shortly entitle the Senate of the University to receive the benefits of the immense estate bequeathed by this high-minded colonist.

Various bequests and gifts.

In 1885, a sum of £30,000 was left to the University by Mr. Thomas Fisher, for the purpose of establishing and maintaining a library in connection with the University. In addition to these munificent gifts of money, the University has in the past been enriched with many foundations, in the shape of scholarships, bursaries, exhibitions, &c., for the maintenance of which, sums amounting in some instances to £5,000, and up to £10,000 were given by wealthy citizens. In 1886, in addition to the gift of the most magnificent private collection of natural history specimens in existence in the Southern Hemisphere, a sum of £6,000 was left by will to the University to found and maintain a curatorship in connection with the same, as soon as a building could be erected for the purpose of housing the collection. This was the gift of the Hon. William Macleay, M.L.C., and one of which it will be difficult to estimate the value, as Mr. Macleay's museum contains many unique specimens of the zoology of the Austral world, and is one of the most remarkable collections ever got together by private means in any part of the globe.

Besides these private gifts, bursaries, scholarships, and medals, which entitle the successful students to valuable and substantial prizes, are obtainable by competitive examination.

Degrees conferred by the University.

Since its foundation, the University of Sydney has conferred 647 degrees, the highest number bestowed in any one year being 51, in 1882. During the ten years ending 1886, the number of

Number of students and candidates for examination.

students attending lectures increased from 58, in 1876, to 340, in 1886; whilst the number of candidates who attended the public examinations has increased both in the senior and junior divisions, the former having advanced from 53, in 1876, to 107, in 1886, and the latter from 356, in 1876, to 858, in 1886.

Corresponding increases in the number of successful candidates at the public examinations have also taken place, as the following table will show.

No. 274.—Sydney University—Number of Students and Results of Public Examinations—1876–86 :—

| Year. | Number of students qualified for matriculation. | Number of students attending lectures. | Public examinations. | | | |
|---|---|---|---|---|---|---|
| | | | Number of seniors who came up. | Number of juniors who came up. | Number of seniors who passed. | Number of juniors who passed |
| 1876 | 34 | 58 | 53 | 356 | 40 | 212 |
| 1877 | 23 | 61 | 63 | 303 | 38 | 135 |
| 1878 | 24 | 62 | 58 | 364 | 41 | 243 |
| 1879 | 58 | 83 | 76 | 333 | 64 | 247 |
| 1880 | 64 | 76 | 66 | 381 | 54 | 209 |
| 1881 | 80 | 81 | 48 | 392 | 36 | 231 |
| 1882 | 101 | 97 | 57 | 398 | 43 | 240 |
| 1883 | 85 | 128 | 57 | 473 | 36 | 299 |
| 1884 | 142 | 203 | 65 | 563 | 48 | 379 |
| 1885 | 115 | 203 | 84 | 645 | 73 | 440 |
| 1886 | 122 | 340* | 107 | 858 | 83 | 548 |

* Of this 137 non-matriculated students attended courses of evening lectures.

Revenue of University.

Until the year 1886, the revenue from the Challis bequest, above mentioned, had not been available, owing to the conditions under which it was made, not being completed. The expenditure of the University was therefore met out of the revenue accruing from students' fees, the Government aid, and sundry private sources. The following table will show the yearly state of the finances of the University during the period from 1876 to 1886.

No. 275.—Receipts and Expenditure of the University of Sydney for the years 1876–86 :—

| Year. | Receipts. | | | | | | | | | | | | Expenditure. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Government aid. | | | College fees. | | | Other sources. | | | Total. | | | | | |
| | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. | £ | s. | d. |
| 1876 | 5,000 | 0 | 0 | 403 | 4 | 6 | 4,904 | 13 | 10 | 10,307 | 18 | 4 | 10,681 | 11 | 8 |
| 1877 | 5,000 | 0 | 0 | 333 | 18 | 0 | 6,261 | 15 | 4 | 11,595 | 13 | 4 | 9,616 | 17 | 3 |
| 1878 | 6,168 | 0 | 0 | 324 | 6 | 6 | 3,556 | 1 | 1 | 10,048 | 7 | 7 | 10,849 | 14 | 10 |
| 1879 | 5,114 | 3 | 6 | 476 | 5 | 7 | 3,223 | 7 | 10 | 8,813 | 16 | 11 | 8,661 | 0 | 9 |
| 1880 | 6,500 | 0 | 0 | 457 | 9 | 9 | 3,960 | 8 | 7 | 10,917 | 18 | 4 | 9,870 | 16 | 5 |
| 1881 | 6,000 | 0 | 0 | 705 | 15 | 3 | 8,577 | 7 | 11 | 15,283 | 3 | 2 | 10,693 | 4 | 11 |
| 1882 | 12,963 | 11 | 0 | 1,080 | 3 | 6 | 2,105 | 15 | 7 | 16,149 | 10 | 1 | 12,700 | 19 | 3 |
| 1883 | 14,342 | 15 | 0 | 1,265 | 15 | 8 | 4,040 | 17 | 11 | 19,649 | 8 | 7 | 19,769 | 12 | 1 |
| 1884 | 15,500 | 0 | 0 | 2,207 | 3 | 2 | 2,600 | 15 | 1 | 20,307 | 18 | 3 | 18,203 | 12 | 7 |
| 1885 | 16,500 | 0 | 0 | 2,108 | 11 | 3 | 1,729 | 14 | 10 | 20,338 | 6 | 1 | 21,577 | 6 | 11 |
| 1886 | 17,500 | 0 | 0 | 2,470 | 18 | 2 | 3,610 | 3 | 7 | 23,581 | 1 | 9 | 23,176 | 10 | 10 |

Affiliated Colleges.

To the University are affiliated three denominational colleges —St. Paul's, in connection with the Church of England; St. John's, in connection with the Roman Catholic Church; and St. Andrew's Presbyterian College—where students belonging to these denominations may reside while attending the University lectures, and complete, under the supervision of their spiritual pastors, the studies which will fit them to fill with honour and distinction the profession they may elect to follow.

The University of Sydney is growing in popularity and usefulness, and the greatest care is exercised in the selection of its professorial staff. Extensive additions to its magnificent buildings are now being made, for the use of the School of Medicine attached to the University. These buildings, when finished, will complete the accommodation for students desiring to follow the profession of medicine and surgery, and the Prince Alfred Hospital, which is within a short distance, will afford them the necessary means of study.

University laboratory.

The laboratory will shortly be replete with every means of illustrating the teaching of physical science, and under the care of the staff of professors, some of whom have a wide reputation in the scientific world, the University of Sydney cannot fail to prosper, and to exert the most beneficial influence on the future of Australia.

## *DENOMINATIONAL HIGH SCHOOLS AND COLLEGES.*

Denominational Colleges.

All the principal religious bodies provide high schools and colleges where students may be educated according to the precepts of their various beliefs and prepared to compete for University honors, or the various professions which they may adopt. Evidence of the progress of superior denominational education in the Colony may be seen in the magnificent college buildings which surround the city, among which may be cited Newington College, the colleges of the Marist Brothers, and the Jesuit Fathers, at Hunter's Hill and Riverview, the old-establised King's School at Parramatta, and a host of other first-class establishments erected under the patronage of the various religious bodies.

## *TECHNICAL EDUCATION.*

Public attention was so strongly directed in the years which followed the great world exhibition of 1851, to the necessity of providing the artizan classes, and the people generally, with the means of obtaining a scientific knowledge of the various handicrafts, that technical schools sprang up in various parts of England, some being under the direct patronage of the State, while others were founded by the wealthy trade societies, or guilds, of the great English cities. The excellent results following the establishment of these schools could not fail to attract attention in the colonies, where a sound and practical knowledge of the manual arts is of paramount necessity. The foundation of the New South Wales Technical School was due in great measure to the efforts of a few gentlemen connected with the Sydney Mechanics'

Foundation of Technical College.

School of Arts, and as far back as 1873 it was decided to establish a Technical College affiliated to that institution, with the object of improving the scientific knowledge of Australian artizans. In the year 1878, a sum of £2,000 was granted by Parliament towards the organization of a Technical College, and for five years the work of the institution was carried on in connection with the School of Arts. In 1883, however, a board was appointed by the Government to take over its management, and the Technical College became thenceforth a State institution.

Course of technical instruction.

The course of instruction, under the present constitution of the Technical College, comprises classes in agriculture, applied mechanics, arts, architecture, geology, chemistry, commercial economy, mathematics, elocution, pharmacy, physics, and domestic economy, and these classes are subdivided into such sub-classes as may be warranted by circumstances.

Number of students.

The college is open to students of both sexes, and, during 1886, 111 female students attended for at least one term. The number of individual students in 1886 averaged 1,033 persons, and the total number who received instruction for at least one term was not less than 2,374.

Country classes.

Branch technical schools have also been established in the northern, southern, and western districts of the Colony, and in 1886 these country classes had an average of 463 students enrolled, with an average attendance of 288.

Technical Workshops.

Technical workshops have been fitted up in Sydney, where mechanical classes are held, and the teaching is illustrated by all the various tools and apparatus needed for the proper understanding of the different processes of each separate class of work.

The Technical College is now fairly established, and its benefits are already being felt and appreciated, whilst the future has every promise of still greater usefulness.

Cost of Technical education.

In 1886, the expenditure of the Board of Technical Education amounted to £17,025. The means at the disposal of the board have not been sufficient for the establishment of country branches in every case where application has been made, but lecturers have been appointed to visit from time to time the principal country centres, and deliver lectures in mineralogy, geology, and agriculture. Proposals have also been made for the granting by the State of suitable areas, or reserves, for the purpose of establishing agricultural colleges and experimental farms, and the near future may see an extension of technical education in this direction.

## *SCIENTIFIC SOCIETIES.*

In a young country such as New South Wales, where most of the people are engaged in the development of its material resources, the existence of a leisured class, or one devoted to the pursuit of science, is hardly to be looked for. Nevertheless it is satisfactory to find that the higher aims of science are far from being neglected.

Royal Society.

As far back as the year 1821, a scientific society under the title of the Philosophical Society of Australasia was founded in Sydney, which, after experiencing many vicissitudes of fortune, was transformed in 1866 into, and afterwards incorporated under the title of, the Royal Society of New South Wales. The society is now in a flourishing condition, counting as it does amongst its members the most eminent men in the Colony. Its object is to forward the advancement of science in Australia, and favour original research in all subjects of scientific, artistic, and philosophical interest, which may further the development of the resources of Australia, draw attention to its productions, or illustrate its natural history. The proceedings, published every year, include papers of the greatest interest on important scientific questions, especially those whose solution is of Australian interest.

**Linnæan Society.**

The study of the botany and natural history of Australia has attracted many enthusiastic students, and the "Linnæan Society of New South Wales" was also established for the special purpose of furthering the advancement of these particular sciences. The society is housed in a commodious building at Elizabeth Bay, one of the most beautiful spots near the city, and already possesses a library and museum. The society has been liberally endowed by the Hon. William Macleay, who, not content with being one of its most munificent supporters, is also an indefatigable worker in the field of science. The society's proceedings are published at regular intervals, and contain many valuable papers, together with excellent illustrations of objects of natural history.

**Geographical Society.**

In 1883, a third scientific society was formed in Sydney under the name of the "Geographical Society of Australasia," with the view of promoting geographical research in a part of the world where much remains to be discovered. Branches of this society have been established in the cities of Melbourne, Brisbane, and Adelaide, and there is no lack of interest displayed in their proceedings.

Among the first tasks undertaken by this Society was the despatch of an expedition to New Guinea, for which purpose aid was obtained from the various colonial Governments. The expedition was under the command of Captain Charles Everill, and resulted in the acquisition of some very useful geographical and scientific knowledge of the island, the discovery of a large affluent of the Fly River being, perhaps, the most important event of the expedition.

**Aid received by scientific societies.**

The scientific societies just mentioned depend for support on private contributions, though, except in the case of the Linnæan Society, the Government grants them small sums annually in proportion to the income received from subscriptions, and has hitherto allowed their "Proceedings and Transactions" to be printed free of charge at the Government Printing Office.

Sydney Observatory.

Among the other institutions of a scientific and educational character which the Colony so liberally supports, the Sydney Observatory is not the least important. Situated in a commanding position, it is admirably fitted for the purpose it is intended to serve. The present building was erected in 1856 at the instance of Sir William Denison, then Governor of the Colony, who took a great interest in scientific pursuits. The Government Astronomer has under him a complete staff of assistants, and during the year 1886 a sum of £4,136 was expended in connection with the institution. Meteorological observations have received special attention, as befits so important a subject in a country whose prosperity depends so much upon climate. When the present Astronomer took office in 1870, there were in the Colony only six stations, and observations on the climate, rainfall, and other meteorological phenomena were necessarily very limited in character. At the end of 1886, the number of stations had been increased to 772. Rain gauges have also been established at most of the sheep and cattle stations of the interior, with a result which is highly satisfactory. The light shed on the true characteristics of the climate, especially of that part of the Colony remote from the sea coast, has tended to remove the notion long current as to its unfitness for agricultural as well as pastoral settlement.

Australian Museum.

The Australian Museum, which is the oldest institution of the kind in Australia, occupies a conspicuous site in the centre of Sydney, facing one of the principal parks. The collections contain carefully selected specimens of the principal objects of natural history found in kindred establishments, and also a most complete collection of zoological specimens of distinctly Australian character. The popularity of the institution is evinced by the increasing number of persons by whom it is visited. The Museum is open to visitors every day, including Sunday, on which day the visitors are very numerous. The number of visitors during 1886 was 127,231, the daily average being 793 on Sundays, and

236 on week days. The expenses in connection with the institution amounted to £7,051, of which sum £3,702 was expended on account of purchases.

Free Public Library.

The Free Public Library was established on the 1st of October, 1869, when the building and books of the Australian Subscription Library were purchased by the Government. The books thus acquired formed the nucleus of the present library. The number of volumes originally purchased was about 16,000, and on the 31st December, 1886, they had increased to 74,324, including those in the lending branch, or lent to country libraries. The lending branch was established in 1879, to meet a growing public want, and, under the present system any person may, on the recommendation of a clergyman, magistrate, or other responsible person, obtain, under certain simple regulations, the loan of any of the works on the shelves, free of charge. The scope of this institution was further extended by the introduction of a system by which country libraries and Mechanics' Institutes may obtain on loan works of a select kind, which in many instances would be too expensive for them to purchase on account of the slender funds at their disposal. Under this system, boxes are made up containing from 60 to 100 books, and forwarded to the country libraries on application, to be returned, or exchanged within four months. This system, although only just initiated, has already met with a large measure of success. In the course of 1886, 77 boxes of books were forwarded to 42 institutions, some of them at considerable distances from the metropolis. The distance which these books were carried amounted to 26,169 miles, being on an average 340 miles for each box, an enormous distance, partly accounted for by the fact that some places to which books are sent were most readily accessible through other colonies. All the charges in connection with the despatch and return of books, insurance, &c., are defrayed by the State, and the system in vogue in New South Wales is the most liberal of its kind in existence.

Loan of books to country Libraries.

Reference Library.

The reference department of the free Public Library contains 50,407 volumes, and the lending branch 21,285. The country libraries were, on the 31st December, 1886, in possession of 2,632 volumes, lent under the system above mentioned, the total number of books and pamphlets, the property of this institution, being 74,324, classified as under:—

| Synopsis of Classification. | Reference Department. | Lending Branch. | Country Libraries. | Total. |
|---|---|---|---|---|
| Natural Philosophy, Science and the Arts ................................ | 5,608 | 2,640 | 469 | 8,717 |
| History, Chronology, Antiquities and Mythology ..................... | 4,868 | 2,210 | 677 | 7,755 |
| Biography and Correspondence ...... | 3,355 | 2,685 | 684 | 6,724 |
| Geography, Topography, Voyages and Travels, &c. .................. | 4,915 | 2,712 | 404 | 8,031 |
| Periodical and Serial Literature ..... | 13,244 | ......... | ...... | 13,244 |
| Jurisprudence.............................. | 2,246 | 615 | 48 | 2,909 |
| Theology, Moral and Mental Philosophy, and Education............ | 3,075 | 1,011 | 64 | 4,150 |
| Poetry and drama ........................ | 1,665 | 534 | 64 | 2,263 |
| Miscellaneous Literature and Novels | 3,933 | 4,010 | 222 | 8,165 |
| Works of Reference and Philology | 3,714 | ......... | ...... | 3,714 |
| Patents .................................... | ......... | 4,301 | ...... | 4,301 |
| Duplicates and unbound volumes ... | 1,195 | ......... | ...... | 1,195 |
| Pamphlets ................................ | 2,589 | ......... | ...... | 2,589 |
| Books for the Blind ..................... | ......... | 567 | ...... | 567 |
| Total Number of Volumes... | 50,407 | 21,285 | 2,632 | 74,324 |

Popularity of Library.

The popularity of the Free Public Library is clearly proved by the number of persons availing themselves of the privileges which it affords. The increase has been very regular, as will be seen in the following statements, rising from 59,786, in 1870, to 168,685, in 1886, 65,255 of whom were visitors at the lending branch.

Number of readers.

Summary of Visits to the Library, 1869–86 :—

| | |
|---|---|
| 1869 (three months—1 Oct. to 32st Dec.) | 17,006 |
| 1870 | 59,786 |
| 1871 | 60,165 |
| 1872 | 48,817 |
| 1873 | 76,659 |
| 1874 (eleven months) | 57,962 |
| 1875 | 66,900 |
| 1876 | 72,724 |
| 1877 | 124,688* |
| 1878 | 117,047 |
| 1879 (Exhibition open) | 152,036 |
| 1880 | 134,462 |
| 1881 | 136,272 |
| 1882 (eleven months) | 133,731 |
| 1883 | 155,431 |
| 1884 (eleven months) | 161,877 |
| 1885 | 165,715 |
| 1886 | 168,685 |

* Lending Branch first opened.

During the course of 1886 and 1887, considerable extensions have been made to the premises of the Free Public Library, which had become much too small for the accommodation of the public, and the proper housing of the books. The new building has been quite recently open to the public, and other extensions and alterations are being proceeded with, which will make this establishment one of the most convenient in Australia. The sum expended on the alterations amounted in 1886 to £7,577.

Cost of maintaining Library.

The institution forms a separate department, under the control of the Minister for Public Instruction, and its cost to the State, during 1886 was, in addition to the amount for building :—

| | |
|---|---|
| Salaries | £4,095 16 8 |
| Maintenance | 512 8 5 |
| Purchase of Books | 3,583 13 10 |
| Total | £8,191 18 11 |

The following table give a summary of the operations of the Library during the year 1886, as well as the number of books found on its shelves.

## No. 276.—Return of the Free Public Library for the year ending 31st December, 1886.

| | Cost of Purchase | Amount of Aid from Government, exclusive of Salaries and Maintenance. | | Estimated value of Volumes, &c., presented as Donations and under Copyright Act. | | | | Number of Volumes and Pamphlets in the Library. | Number of Visits during the year. |
|---|---|---|---|---|---|---|---|---|---|
| | | Prior to 1886. | During 1886. | Prior to 1886. | | During 1886. | | | |
| | £ s. d. | £ s. d. | £ s. d. | No. | £ s. d. | No. | £ s. d. | | |
| Reference Library | 5,570 12 5 | 34,078 15 0 | 2,860 9 11 | 4,486 | 2,085 3 8 | 337 | 56 9 0 | 50,407 | 103,430 |
| | | | | *68 | 22 7 1 | *171 | *23 2 3 | | |
| Lending Branch ... | ........... | 4,588 4 7 | 340 2 10 | 27 | 3 0 0 | ... | ........... | 21,285 | 65,255 |
| Country Libraries—Loans of Books, in boxes *only*... | ........... | 1,607 2 3 | 383 1 1 | ...... | ........... | ... | ........... | 2,632 | ......... |
| Total......... | 5,570 12 5 | 40,274 1 10 | 3,583 13 10 | 4,581 | 2,110 10 9 | 508 | 79 11 3 | 74,324 | 168,685 |

* Under Copyright Act.

## *RELIGION.*

In the eyes of the State all religions are equal in New South Wales, but during the early days of the history of the Colony such was not the case. New South Wales was originally essentially a Crown Colony, and the Church establishment, as it existed in England, was therefore naturally transplanted to these shores. Ecclesiastical monopoly, nevertheless, only continued for a short time, and the countenance and support of the State were eventually extended, during the governorship of Sir Richard Bourke, to the principal religious bodies which then existed—the Anglicans, Roman Catholics, Presbyterians, and Wesleyan Methodists. To the clergy of each of these denominations the Government granted what has usually been denominated State aid, which continued long after the old political system had passed away and had been replaced by Responsible Government. In 1862, however, an Act was passed limiting future payments to the clergy then actually in receipt of State aid. In the year following the passing of this Act, the claims on the Government amounted to £32,372, and were thus distributed :—

Equality of all religions.

State aid to religion.

| | |
|---|---|
| Church of England | £17,967 |
| Roman Catholic Church | 8,748 |
| Presbyterians | 2,873 |
| Wesleyan Methodists | 2,784 |

Year by year the sum payable has been lessening, owing chiefly to the death of clergymen in receipt of State aid, so that in 1886 the payment by the State was at the rate of £10,743 per annum, as follows :—

| | |
|---|---|
| Church of England | £5,791 |
| Roman Catholic Church | 3,000 |
| Presbyterians | 902 |
| Wesleyan Methodists | 1,050 |

The payments for each year since 1863 are given below. It will be observed that in several years the amounts paid were less

Payments on account of State aid.

than in succeeding years. This anomaly is due to the temporary stoppage of the stipends of certain clergymen who were away from the Colony, or otherwise absent from duty.

No. 277.—Amounts paid to the Clergy of different Denominations since the passing of the Act for the Abolition of State Aid to Religion:—

| Year. | Church of England. | Roman Catholic Church. | Presbyterian. | Wesleyan Methodist. | Total—All denominations. |
|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ |
| 1863 | 17,967 | 8,748 | 2,873 | 2,784 | 32,372 |
| 1864 | 17,518 | 8,233 | 2,614 | 1,179 | 29,546 |
| 1865 | 14,111 | 7,430 | 3,089 | 1,572 | 26,203 |
| 1866 | 13,977 | 7,445 | 2,852 | 1,572 | 25,847 |
| 1867 | 13,254 | 7,275 | 2,852 | 1,572 | 24,954 |
| 1868 | 12,766 | 7,083 | 2,846 | 1,965 | 24,662 |
| 1869 | 12,370 | 6,796 | 2,487 | 1,572 | 23,226 |
| 1870 | 12,386 | 6,583 | 2,179 | 1,572 | 22,722 |
| 1871 | 10,994 | 6,416 | 1,942 | 1,572 | 20,925 |
| 1872 | 12,186 | 6,034 | 1,822 | 1,484 | 21,527 |
| 1873 | 11,236 | 5,804 | 1,702 | 1,372 | 20,115 |
| 1874 | 11,224 | 5,962 | 1,560 | 1,372 | 20,119 |
| 1875 | 10,724 | 5,608 | 1,625 | 1,372 | 19,331 |
| 1876 | 10,212 | 5,300 | 1,778 | 1,029 | 18,320 |
| 1877 | 9,803 | 5,024 | 1,702 | 1,715 | 18,245 |
| 1878 | 9,180 | 4,550 | 1,702 | 1,029 | 16,461 |
| 1879 | 8,238 | 4,356 | 1,702 | 1,372 | 15,689 |
| 1880 | 7,739 | 3,892 | 1,702 | 1,715 | 15,049 |
| 1881 | 7,412 | 3,729 | 1,689 | 991 | 13,822 |
| 1882 | 6,557 | 3,487 | 1,636 | 1,455 | 13,136 |
| 1883 | 6,082 | 3,245 | 1,407 | 1,324 | 12,059 |
| 1884 | 5,975 | 3,025 | 1,177 | 1,222 | 11,399 |
| 1885 | 6,040 | 3,000 | 1,052 | 1,136 | 11,229 |
| 1886 | 5,790 | 3,000 | 902 | 1,050 | 10,742 |

The number of persons entitled to State aid during 1886 was 63—33 Church of England, 17 Roman Catholics, 6 Presbyterians, and 7 Wesleyan Methodists.

Adherents of each religion.

The number of members of each religious body was estimated at the census of 1881, and the relative proportions of each of the larger denominations were found to differ but slightly from those shown by the previous census. Distributing the population on the basis of the census of 1881, the estimated number of adherents to each of the denominations, with the clergy registered for the celebration of marriages was during 1886 as follows :—

No. 278.—Religious persuasions : Clergy and Adherents, 1886.

| Denomination. | Clergy. | Adherents. | Proportion of adherents to clergy. |
|---|---|---|---|
| Church of England ......... | 223 | 455,898 | 2,044 |
| Roman Catholic ............ | 255 | 276,843 | 1,086 |
| Presbyterian .................. | 136 | 96,790 | 712 |
| Wesleyan, and other Methodist.................. | 169 | 85,968 | 509 |
| Congregational ............... | 58 | 19,138 | 330 |
| Baptist ......................... | 23 | 9,819 | 427 |
| Other Protestant ........... | 30 | 19,839 | 661 |
| Unitarian ...................... | 1 | 1,202 | 1,202 |
| Hebrew ......................... | 4 | 4,409 | 1,102 |
| Others .......................... | ...... | 32,063 | ......... |
| Total ............... | 999 | 1,001,966 | 1,002 |

Returns of Church attendance unreliable.

The returns of church attendance are for the most part extremely unsatisfactory. The greatest difficulty is experienced in obtaining returns at all, and when received very many are imperfect. This has long since been a source of complaint, not only in this Colony but in Victoria, where the subject of the imperfection of the returns filled in by clergymen has been repeatedly adverted to by the Statist of that Colony. Nevertheless, returns have been obtained, either directly from the clergy or otherwise, of the attendance at nearly all the churches of this Colony during 1886. The returns for the year 1886 for the first time show the number usually attending the principal service on Sundays, and though such a plan may result in a slight understating of the number of individuals who usually attend Divine service it is more likely to give correct results than the plan of adding together the numbers present at all the services which had formerly been followed. The number attending the principal Sunday services amounted to 214,569 persons, not including 27,000 said to have attended the ministrations of the Salvation Army.

Attendance at Divine Service.

The probable number of adults in the community during 1886 was 600,000, and the church attendance is therefore equal to 34 per cent., a very high ratio indeed, whether compared with the attendance in other countries, or considered in regard to the scattered population of the Colony. The figures for each of the principal denominations are given hereunder. Sunday school children are not included.

No. 279.—Attendance at Divine Service on Sundays:—

| Denomination. | Number usually attending principal Sunday service. |
|---|---|
| Church of England | 60,796 |
| Roman Catholic | 72,505 |
| Presbyterian | 19,970 |
| Wesleyan Methodist | 37,813 |
| Other Methodists | 7,060 |
| Congregationalist | 8,865 |
| Baptist | 4,095 |
| Others | 3,465 |
|  | 214,569 |

Sunday schools maintained by all denominations.

Nearly all the religious bodies maintain Sunday schools. The attendance of children at these schools shows a considerable increase during 1886 over that of the previous year. Some part of this increase is merely apparent, and is due to the greater completeness in the returns, but the greater portion of the improved attendance results from the extension of school accommodation in various parts of the country. The attendance at the schools of the leading denominations, with the number of schools and teachers during 1886, was:—

## No. 280.—Sunday schools: Number of Schools maintained by various Denominations, also Teachers, and Attendance of Children, during the year 1886.

| Denomination. | Number of schools. | Number of teachers. | | | Average attendance of children. | | |
|---|---|---|---|---|---|---|---|
| | | Male. | Female. | Total. | Male. | Female. | Total. |
| Church of England | 491 | 1,189 | 2,262 | 3,451 | 15,098 | 18,215 | 33,313 |
| Roman Catholic...... | 372 | 371 | 1,072 | 1,443 | 9,988 | 13,163 | 23,151 |
| Presbyterian ......... | 219 | 578 | 838 | 1,416 | 5,082 | 5,855 | 10,937 |
| Wesleyan Methodist | 324 | 1,240 | 1,346 | 2,586 | 9,785 | 11,146 | 20,931 |
| Other Methodists ... | 70 | 434 | 316 | 750 | 2,966 | 3,042 | 6,008 |
| Congregational ...... | 59 | 338 | 368 | 706 | 2,830 | 3,281 | 6,111 |
| Baptist .............. | 30 | 136 | 115 | 251 | 954 | 1,032 | 1,986 |
| Other denominations | 31 | 88 | 68 | 156 | 604 | 620 | 1,224 |
| Total ......... | 1,596 | 4,374 | 6,385 | 10,759 | 47,307 | 56,354 | 103,661 |

Attendance at Sunday schools.

The attendance given above is extremely high, amounting as it does to nearly 56 per cent. of the total children between the ages of seven and fifteen years, at which ages children generally attend Sunday schools. The attendance at Sunday schools during each year since 1876 was:—

## No. 281.—Number of Sunday Schools, Teachers, and Scholars—1876–86.

| Year. | Number of schools. | Number of teachers. | Average attendance. | | |
|---|---|---|---|---|---|
| | | | Male. | Female. | Total. |
| 1876 | 1,058 | 7,099 | 27,443 | 31,394 | 58,837 |
| 1877 | 1,121 | 7,615 | 28,943 | 33,094 | 62,037 |
| 1878 | 1,196 | 8,063 | 29,877 | 34,699 | 64,576 |
| 1879 | 1,285 | 8,491 | 31,802 | 37,710 | 69,512 |
| 1880 | 1,340 | 9,027 | 33,304 | 39,089 | 72,393 |
| 1881 | 1,405 | 9,289 | 34,950 | 40,722 | 75,672 |
| 1882 | 1,318 | 9,190 | 34,393 | 41,334 | 75,727 |
| 1883 | 1,441 | 9,793 | 35,205 | 42,610 | 77,815 |
| 1884 | 1,461 | 9,426 | 35,883 | 43,202 | 79,085 |
| 1885 | 1,513 | 9,986 | 37,991 | 46,531 | 84,522 |
| 1886 | 1,596 | 10,759 | 47,307 | 56,354 | 103,661 |

# PART XVI.

## Employment and Social Condition.

Manufactories of New South Wales.

ALTHOUGH New South Wales cannot be considered an important manufacturing country, this source of national wealth has by no means been neglected, and during the year 1886 the number of persons employed in manufacturing pursuits in New South Wales was larger than in any other colony of the group. During the year named there were 3,694 manufactories or works of various descriptions, employing altogether a total of 45,783 hands, of whom 42,289 were males, and 3,494 females. These works had machinery in operation developing a total of 25,199 horse-power, and valued at £5,801,757. During the same period there were in Victoria 2,770 manufactories, employing 45,773 persons, with machinery valued at £4,786,857, and land and buildings worth £6,541,301.

Plan adopted in compiling statistics.

In all the Australian Colonies most manufacturing industries are in their infancy, and are so small in comparison with the large establishments of other countries, that the practice which obtains of enumerating the smaller class works, would appear open to question. Unless, however, the beginnings of the various industries are now noted it will be impossible hereafter to trace their progress. No works which are simply retail establishments, have been included in any of the following tables: on the contrary, steam or other power is employed in the majority of cases. The following is a complete list of works in operation during 1886.

No. 282.—Manufactories Classified, with the Number of Hands, Power, and Value of Plant employed during the year 1886 :—

| Description of Manufactory or Work. | Number of Works. | Hands employed. | | | Power of Plant or Machinery. | Value of Plant or Machinery. |
|---|---|---|---|---|---|---|
| | | Male. | Female. | Total. | | |
| | | | | | Horse-power. | £ |
| Agricultural Implements— | | | | | | |
| Agricultural and Dairy Implements | 49 | 281 | ...... | 281 | 87 | 18,515 |
| Raw Material, the Production of Pastoral Pursuits— | | | | | | |
| Boiling-down and glue | 39 | 172 | ...... | 172 | 116 | 12,668 |
| Bone-dust and manure | 9 | 24 | ...... | 24 | 75 | 2,950 |
| Fellmongering | 20 | 105 | ...... | 105 | 42 | 7,140 |
| Tanneries | 97 | 625 | 2 | 627 | 356 | 86,585 |
| Wool-pressing | 8 | 359 | ...... | 359 | 267 | 55,080 |
| Wool-washing | 63 | 1,506 | 3 | 1,509 | 691 | 124,225 |
| | 236 | 2,791 | 5 | 2,996 | 1,547 | 288,648 |
| Connected with Food and Drink or the Preparation thereof— | | | | | | |
| Aerated waters | 243 | 1,099 | 8 | 1,107 | 478 | 107,279 |
| Beer and porter, including bottles | 74 | 986 | 1 | 987 | 683 | 268,835 |
| Bread and biscuits (steam) | 12 | 319 | 79 | 398 | 180 | 40,050 |
| Butter | 26 | 91 | 36 | 127 | 72 | 7,737 |
| Cheese | 132 | 587 | 225 | 712 | 66 | 14,191 |
| Coffee and spice | 5 | 83 | 1 | 84 | 34 | 1,900 |
| Condiments | 4 | 14 | 2 | 16 | ...... | 350 |
| Confectionery (wholesale) | 28 | 318 | 69 | 387 | 62 | 23,435 |
| Fish (preserved) | 2 | 11 | ...... | 11 | ...... | 210 |
| Flour | 133 | 570 | 1 | 571 | 2,650 | 333,362 |
| Ice and refrigerating | 8 | 267 | ...... | 267 | 94 | 57,950 |
| Jam | 5 | 120 | 52 | 172 | 35 | 5,200 |
| Maizena and oatmeal | 3 | 39 | 6 | 45 | 40 | 18,000 |
| Meat-curing | 6 | 17 | ...... | 17 | 15 | 1,880 |
| Meat-preserving | 5 | 277 | ...... | 277 | 240 | 20,550 |
| Meat (small goods) | 29 | 162 | ...... | 162 | 77 | 3,925 |
| Self-raising flour and baking powder | 8 | 59 | 10 | 69 | 20 | 2,400 |
| Sugar (refined) | 2 | 213 | 1 | 214 | 156 | 160,000 |
| Sugar (raw) | 64 | 2,259 | ...... | 2,259 | 2,552 | 500,055 |
| Spirits (rum) | 6 | 27 | ...... | 27 | ...... | 5,790 |
| Vinegar | 8 | 35 | ...... | 35 | 6 | 970 |
| Wine | 6 | 17 | 2 | 19 | ...... | 510 |
| | 809 | 7,570 | 493 | 8,063 | 7,460 | 1,574,579 |
| Chemical Works— | | | | | | |
| Chemicals | 5 | 56 | 2 | 58 | 57 | 16,870 |
| Patent medicines, &c. | 3 | 6 | 3 | 9 | 10 | 1,400 |
| | 8 | 62 | 5 | 67 | 67 | 18,270 |

| Description of Manufactory or Work. | Number of Works. | Hands employed. | | | Power of Plant or Machinery. | Value of Plant or Machinery. |
|---|---|---|---|---|---|---|
| | | Male. | Female. | Total. | | |
| **Clothing and Textile Fabrics—** | | | | | Horse-power. | £ |
| Boots and shoes | 68 | 1,856 | 416 | 2,272 | 145 | 28,570 |
| Clothing | 71 | 1,144 | 1,686 | 2,830 | 4 | 4,255 |
| Hats and caps | 19 | 116 | 45 | 161 | ...... | 2,230 |
| Oil-skin clothing | 2 | 11 | 27 | 38 | ...... | ...... |
| Stays and belts | 2 | ...... | 8 | 8 | ...... | 60 |
| Shirts | 2 | 4 | 26 | 30 | ...... | ...... |
| Umbrellas | 3 | 6 | 5 | 11 | ...... | 100 |
| Woollen cloth | 8 | 104 | 78 | 182 | 238 | 40,500 |
| | 175 | 3,241 | 2,291 | 5,532 | 387 | 75,715 |
| **Building Materials—** | | | | | | |
| Bricks | 330 | 2,959 | ...... | 2,959 | 1,414 | 315,869 |
| Joinery | 92 | 1,174 | ...... | 1,174 | 826 | 86,175 |
| Lime | 33 | 262 | ...... | 262 | 27 | 11,288 |
| Modelling and patterns | 12 | 98 | ...... | 98 | ...... | 4,650 |
| Monumental | 39 | 214 | ...... | 214 | 13 | 4,404 |
| Paint | 2 | 16 | ...... | 16 | 28 | 1,900 |
| Pottery | 27 | 267 | 1 | 268 | 207 | 54,607 |
| Saw-mills | 323 | 3,272 | 12 | 3,284 | 5,177 | 457,632 |
| Stone-dressing | 2 | 40 | ...... | 40 | 42 | 8,500 |
| Stone-crushing | 12 | 208 | ...... | 208 | 175 | 23,950 |
| Stone quarries | 48 | 664 | ...... | 664 | 98 | 32,745 |
| | 920 | 9,174 | 13 | 9,187 | 8,007 | 1,001,720 |
| **Metal Works, &c.—** | | | | | | |
| Iron and brass foundries | 78 | 1,293 | ...... | 1,292 | 666 | 99,110 |
| Galvanized iron and plumbing | 36 | 505 | ...... | 505 | 50 | 52,450 |
| Machinery and engineering | 75 | 2,197 | ...... | 2,197 | 1,173 | 310,950 |
| Railway workshops and carriage factories | 6 | 1,736 | ...... | 1,736 | 324 | 201,500 |
| Smelting pyrites, cobalt, &c. | 12 | 726 | ...... | 726 | 263 | 172,500 |
| Tinware | 42 | 328 | 6 | 334 | 14 | 12,085 |
| Wire | 11 | 101 | ...... | 101 | 41 | 18,570 |
| Ironworkers (other) | 11 | 46 | ...... | 46 | 14 | 1,520 |
| | 271 | 6,932 | 6 | 6,938 | 2,545 | 868,685 |
| **Ship-building, repairing, &c.—** | | | | | | |
| Dry Docks, Floating Docks, and Slips | 13 | 232 | ...... | 232 | 166 | 75,650 |
| Masts and blocks | 2 | 6 | ...... | 6 | 4 | 400 |
| Sails, tarpaulins, &c. | 12 | 86 | 1 | 87 | 3 | 530 |
| Ship and anchor smiths | 2 | 19 | ...... | 19 | 14 | 3,100 |
| Ship and boat building, &c. | 67 | 733 | ...... | 733 | 99 | 51,378 |
| | 96 | 1,076 | 1 | 1,077 | 286 | 129,058 |
| **Waterworks—** | | | | | | |
| Waterworks and irrigation | 14 | 66 | ...... | 66 | 1,138 | 148,700 |

| Description of Manufactory or Work. | Number of Works. | Hands employed. | | | Power of Plant or Machinery | Value of Plant or Machinery |
|---|---|---|---|---|---|---|
| | | Male. | Female. | Total. | | |
| | | | | | Horse-power. | £ |
| Furniture, Bedding, &c.— | | | | | | |
| Bedding | 27 | 166 | 45 | 211 | 54 | 8,675 |
| Curled hair and flock | 6 | 20 | ...... | 20 | 68 | 2,500 |
| Furniture | 90 | 890 | 43 | 933 | 113 | 21,317 |
| Mats and matting | 2 | 107 | ...... | 107 | 3 | 700 |
| Picture-frames | 14 | 37 | ...... | 37 | ...... | 690 |
| Window-blinds | 7 | 69 | 3 | 72 | 12 | 1,460 |
| | 146 | 1,289 | 91 | 1,380 | 250 | 35,342 |
| Books, Paper, Printing, and Engraving— | | | | | | |
| Account books, &c. | 22 | 257 | 186 | 443 | 3 | 2,850 |
| Engraving, &c, | 8 | 44 | ...... | 44 | ...... | 1,800 |
| Paper | 1 | 47 | 13 | 60 | 20 | 30,000 |
| Paper bags | 4 | 17 | 37 | 54 | 1 | 1,500 |
| Printing | 138 | 3,022 | 31 | 3,053 | 429 | 398,430 |
| Printing and other inks | 2 | 5 | ...... | 5 | 8 | 445 |
| | 175 | 3,392 | 267 | 3,659 | 461 | 435,025 |
| Paving and Asphalting— | | | | | | |
| Asphalt, wood, and tar pavement | 13 | 73 | ...... | 73 | 50 | 31,855 |
| Miscellaneous— | | | | | | |
| Bark-chopping | 7 | 17 | ...... | 17 | 22 | 850 |
| Baskets | 8 | 65 | 2 | 67 | ...... | 160 |
| Brooms, millet | 3 | 22 | ...... | 22 | ...... | 290 |
| Brushes | 4 | 24 | ...... | 24 | .. ... | 340 |
| Chaff and crushed corn | 166 | 546 | .. ... | 546 | 611 | 32,884 |
| Coke | 3 | 47 | ...... | 47 | 1 | 3,000 |
| Cooperage | 14 | 45 | ...... | 45 | 6 | 1,320 |
| Dyeing | 10 | 29 | 13 | 42 | 6 | 1,680 |
| Electric light | 5 | 13 | ...... | 13 | 90 | 14,200 |
| Gas | 28 | 1,084 | ...... | 1,084 | 479 | 494,313 |
| Kerosene oil | 4 | 375 | ...... | 375 | 327 | 291,500 |
| Ladders and barrows | 5 | 21 | ...... | 21 | ...... | 160 |
| Laundries (steam) | 6 | 18 | 127 | 145 | 36 | 8,530 |
| Packing cases | 6 | 37 | ...... | 37 | 38 | 1,530 |
| Perambulators | 3 | 12 | 3 | 17 | ...... | 450 |
| Ropes | 8 | 110 | ...... | 110 | 111 | 31,795 |
| Saw-mills (firewood) | 63 | 274 | ...... | 274 | 389 | 20,620 |
| Scales | 3 | 8 | ...... | 8 | ...... | 240 |
| Soap, candles, and soap powder. | 46 | 308 | 13 | 321 | 331 | 89,745 |
| Soda crystals | 3 | 10 | ...... | 10 | 3 | 700 |
| Tobacco, cigars, &c | 17 | 559 | 144 | 703 | 120 | 64,500 |
| * Others not included above | 13 | 37 | 6 | 43 | 126 | 7,693 |
| | 425 | 3,661 | 308 | 3,969 | 2,696 | 1,066,500 |

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* Where more than one kind of work is carried on in one establishment, it has frequently been found impossible to distinguish the number of hands, power, and value of plant engaged in the various industries; in such cases the total has been credited to the principal industry, hence the small number of hands, &c., included under this and some other heads.

| Description of Manufactory or Work. | Number of Works. | Hands employed. | | | Power of Plant or Machinery | Value of Plant or Machinery |
|---|---|---|---|---|---|---|
| | | Male. | Female. | Total. | | |
| Goldsmiths and Philosophical Instrument Makers— | | | | | Horse-power. | £ |
| Electro-plating | 3 | 15 | 2 | 17 | 6 | 1,300 |
| Jewellery | 21 | 138 | ...... | 138 | ...... | 2,530 |
| Philosophical instruments | 7 | 26 | 4 | 30 | 1 | 6,350 |
| | 31 | 179 | 6 | 179 | 7 | 10,180 |
| Carriage Works— | | | | | | |
| Coaches and waggons | 215 | 1,879 | 3 | 1,900 | 167 | 78,208 |
| Wheels, wood-bending, &c. | 2 | 17 | ...... | 17 | 5 | 815 |
| | 217 | 1,914 | 3 | 1,917 | 172 | 79,023 |
| Glass— | | | | | | |
| Glass | 2 | 52 | ...... | 52 | 1 | 7,200 |
| Glass silvering and staining | 3 | 36 | ...... | 36 | 16 | 3,700 |
| | 5 | 88 | ...... | 88 | 17 | 10,900 |
| Saddlery and Harness— | | | | | | |
| Saddlery and harness | 95 | 486 | 5 | 491 | 15 | 9,042 |
| Whips, saddle-trees, &c. | 5 | 14 | ...... | 14 | ...... | ......... |
| | 100 | 500 | 5 | 505 | 15 | 9,042 |
| General total | 3,694 | 42,289 | 3,494 | 45,783 | 25,199 | 5,801,757 |

Large number of works for treating raw produce.

It will be seen that a large proportion of the establishments included in the foregoing list are connected with the preparation of food, or raw produce. There has, however, been fair progress in other directions, and, as will be seen from a subsequent table, the growth of the manufacturing power has been in keeping with the general progress observable in other departments of industry. The number of persons dependent for their livelihood on the manufacturing interest may be estimated at about 170,000, or one sixth of the whole population of the Colony.

In the following table the gradual progress of the manufacturing industry of the Colony during the last decade may be readily traced. It will be noticed that the total number of works of all kinds has risen in the short period embraced by the table from 2,602 in 1877, to 3,694 in 1886, or nearly 42 per cent., while the number of hands employed has advanced from 24,902 to 45,783, or nearly 84 per cent. during nine years.

No. 283.—Number of Works and Hands employed in each year 1877–86 :—

| Year. | Metropolitan Electorates. | | | | Country Electorates. | | | | General Total. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | No. of Manufactories, &c. | No. of Hands employed. | | | No. of Manufactories, &c. | No. of Hands employed. | | | No. of Manufactories, &c. | No. of Hands employed. | | |
| | | Male. | Female. | Total. | | Male. | Female. | Total. | | Male. | Female. | Total. |
| 1877 | 810 | 10,488 | 3,070 | 14,558 | 1,792 | 11,227 | 147 | 11,374 | 2,602 | 21,715 | 3,217 | 24,932 |
| 1878 | 867 | 12,184 | 3,052 | 15,236 | 1,856 | 10,568 | 187 | 10,755 | 2,723 | 22,752 | 3,239 | 28,991 |
| 1879 | 905 | 12,523 | 2,481 | 15,004 | 1,756 | 10,492 | 218 | 10,710 | 2,661 | 23,015 | 2,699 | 25,714 |
| 1880 | 971 | 15,043 | 1,643 | 16,686 | 1,816 | 11,463 | 185 | 11,648 | 2,787 | 26,506 | 1,828 | 28,334 |
| 1881 | 995 | 15,671 | 2,222 | 18,893 | 1,985 | 13,227 | 191 | 13,418 | 2,980 | 28,898 | 2,413 | 31,311 |
| 1882 | 1,023 | 17,062 | 1,903 | 18,965 | 2,180 | 15,012 | 210 | 15,222 | 3,203 | 32,074 | 2,113 | 34,187 |
| 1883 | 1,049 | 17,872 | 1,971 | 19,843 | 2,217 | 14,974 | 425 | 15,399 | 3,266 | 32,846 | 2,396 | 35,242 |
| 1884 | 1,137 | 19,969 | 2,257 | 22,226 | 2,361 | 17,144 | 232 | 17,376 | 3,498 | 37,113 | 2,489 | 39,602 |
| 1885 | 1,176 | 20,640 | 3,258 | 23,898 | 2,436 | 18,685 | 246 | 18,931 | 3,612 | 39,325 | 3,504 | 42,829 |
| 1886 | 1,463 | 23,361 | 3,001 | 26,362 | 2,231 | 18,928 | 493 | 19,421 | 3,694 | 42,289 | 3,494 | 45,783 |

Comparison with other colonies.

As estimated by the number of works and the hands employed in manufacturing, New South Wales stands at the head of all the colonies of the group, as will be seen from the following table compiled from statements obtained from official sources. The figures for Tasmania have been omitted, as the returns for that colony embrace many establishments not included in those of the other colonies. The number of hands employed in Victoria during 1885 was 49,297, and the works numbered 2,813: there was therefore a decrease during 1886 of 43 works and 3,524 hands. As regards New South Wales, exact figures can hardly be given, as the number of hands employed in some important works varies greatly with the season. This is especially the case with sugar-mills, and wool-pressing establishments; but it is believed that the figures stated fairly represent the average of the year.

| Colony. | Manufactories and Works—1886-87. | Hands Employed. |
|---|---|---|
| New South Wales | 3,694 | 45,783 |
| Victoria | 2,770 | 45,773 |
| Queensland | 1,125 | ........ |
| South Australia | 731 | 9,946 |
| Western Australia | 169 | ........ |
| New Zealand | 2,268 | 25,655 |

Decrease in females employed.

A satisfactory feature of the progress exhibited is that the number of women employed in factories and works has not increased at the same rapid rate as male employés. In 1877, the number of females employed was 3,217, while in 1886 it had risen to 3,494, showing an increase of only 233 female hands in ten years. An examination of the following table will show that this increase has been chiefly confined to steam-washing works and tobacco and boot factories, whilst in the manufacture of clothing, fewer women are now employed than was the case ten years ago.

No. 284.—Number of Females employed in Principal Industries for the period 1877–86:—

| Name of Establishment. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| Account Book, &c., Manufactories | 71 | 64 | 68 | 64 | 84 | 83 | 131 | 144 | 177 | 186 |
| Bakeries (steam) | ...... | ...... | 5 | 11 | 14 | 26 | 33 | 53 | 62 | 79 |
| Bedding Manufactories | 23 | 45 | 22 | 31 | 35 | 43 | 60 | 52 | 60 | 45 |
| Boot ,, | 305 | 299 | 373 | 341 | 377 | 341 | 377 | 418 | 433 | 416 |
| Clothing ,, | 2,081 | 2,138 | 1,487 | 830 | 1,260 | 994 | 1,071 | 1,112 | 1,794 | 1,686 |
| Confectionery ,, | 64 | 79 | 74 | 33 | 44 | 34 | 47 | 45 | 60 | 69 |
| Gingerbeer, Aerated Waters, &c. | 10 | 5 | 11 | 6 | 14 | 14 | 189 | 12 | 23 | 7 |
| Hat Manufactories | 70 | 24 | 30 | 26 | 12 | 23 | 24 | 45 | 55 | 45 |
| Jam ,, | 4 | 10 | 13 | 10 | 5 | 8 | 12 | 23 | 23 | 52 |
| Printing Works | 29 | 30 | 54 | 19 | 9 | ...... | 24 | 26 | 76 | 31 |
| Paper-box, &c. | 4 | 6 | 7 | 10 | 22 | 4 | 2 | 19 | 24 | 37 |
| Shirt Manufactories | 344 | 309 | 314 | 175 | 166 | 96 | ...... | 50 | 100 | 26 |
| Soap-powder ,, | 12 | 23 | 14 | 22 | 23 | 39 | 30 | 28 | 26 | 11 |
| Steam Laundries | 22 | 3 | 4 | 21 | 41 | 48 | 79 | 85 | 84 | 127 |
| Tobacco Manufactories | 62 | 62 | 41 | 56 | 50 | 86 | 90 | 155 | 257 | 144 |
| Woollen Cloth ,, | 51 | 53 | 119 | 100 | 157 | 119 | 112 | 137 | 189 | 78 |
| Other Industries, not enumerated above | 65 | 89 | 63 | 73 | 100 | 155 | 115 | 82 | 61 | 462 |
|  | 3,217 | 3,239 | 2,699 | 1,828 | 2,413 | 2,113 | 2,396 | 2,486 | 3,504 | 3,501 |

Ample field for establishing new factories.

As regards the future, however, a vast field is open for the development of manufactures in New South Wales. Producing as it does the raw material of various kinds necessary for supplying the primary wants of civilization, it is evident that the Colony will not long continue the wasteful process of exporting the raw article and taking it back again in the shape of manufactured goods. The one great cause which has hitherto operated to prevent the larger development of manufactures is the abundant employment which has easily been found for labour and capital in other directions, such as mining, agricultural, and pastoral pursuits. It cannot be anticipated that these fields for investment will always remain open, and capital must then seek other channels.

Manufacture of woollen cloth.

The manufacture of wool into cloth and other articles seems specially adapted to the circumstances of New South Wales as a wool-growing country, but, as will afterwards appear, this industry has made no progress.

No. 285.—Woollen Mills :—

| Year. | Number of Establishments. | Hands Employed |  |  | Quantity of Woollen Cloth Manufactured. |
|---|---|---|---|---|---|
|  |  | Male. | Female. | Total. |  |
|  |  |  |  |  | yds. |
| 1877 | 8 | 156 | 51 | 207 | 421,452 |
| 1878 | 9 | 145 | 53 | 198 | 480,037 |
| 1879 | 9 | 157 | 119 | 276 | 415,400 |
| 1880 | 8 | 114 | 100 | 214 | 353,100 |
| 1881 | 5 | 178 | 157 | 335 | 358,000 |
| 1882 | 8 | 266 | 119 | 385 | 319,225 |
| 1883 | 9 | 260 | 112 | 372 | 352,000 |
| 1884 | 7 | 175 | 137 | 312 | 305,000 |
| 1885 | 6 | 134 | 189 | 323 | 337,750 |
| 1886 | *8 | 104 | 78 | 182 | 324,788 |

* Two mills not working.

From these figures it will be noticed that the number of woollen mills in operation has not increased, and that those now at work provide employment for 182 persons only. During the year 1882 and 1883, more than twice this number of hands were employed, and even at the beginning of the last decade 207 persons were provided with work in this branch of industry. The quantity of cloth manufactured, as a necessary consequence, has also considerably decreased. When, however, it is remembered that the export of wool reached no less a sum than £7,028,596 in 1886, and that wearing apparel to the amount of £1,234,823 was imported for home consumption during the same year, the full significance of the small number of persons engaged in the manufacture of woollen cloth will be at once perceived.

Manufacture of boots.

On the other hand the manufacture of boots and shoes exhibits a slight progress, as may be seen from the table below :—

No. 286.—Boot Factories.

| Year. | Number of Establishments. | Hands Employed. | | |
|---|---|---|---|---|
| | | Males. | Females. | Total. |
| 1877 | 104 | 1,610 | 305 | 1,915 |
| 1878 | 71 | 1,584 | 299 | 1,883 |
| 1879 | 71 | 1,750 | 373 | 2,123 |
| 1880 | 75 | 2,038 | 341 | 2,379 |
| 1881 | 71 | 1,849 | 377 | 2,226 |
| 1882 | 62 | 1,695 | 341 | 2,036 |
| 1883 | 61 | 1,748 | 377 | 2,125 |
| 1884 | 68 | 1,871 | 418 | 2,289 |
| 1885 | 65 | 1,672 | 433 | 2,105 |
| 1886 | 68 | 1,856 | 416 | 2,272 |

From the above figures it will be noticed that although there is a fair increase in the number of hands—which from 1,915 in 1877 had risen to 2,272 in 1886—yet the number of establishments has considerably decreased. This would indicate a tendency for large factories to supersede small works, and drive the latter out of competition in this particular branch of manufacture. The average number of hands employed in each factory has risen from 18·4 in 1877 to 33·4 in 1886. The number of pairs of boots made during the year was 1,881,210.

Prospects of iron trade.

What should, in time, form another great staple industry of Australia is undoubtedly the iron trade. Every advantage which the great iron and machinery producing countries of the world—such as England and Belgium—possess, are also present here. Not only are iron and coal deposited in abundance, and in positions easily accessible and readily worked, but, as pointed out in Part VI, the local iron ore is exceedingly rich. Scarcely any progress, however, has been made in iron smelting, and nearly the whole stock of pig and wrought iron required for the local manufactories is imported. The other descriptions of metal works, both for smelting and manufacturing, are in a more forward state. All works for the treatment of metal in 1877 numbered 189, in which were engaged 3,653 persons, while in 1886 the number of works had increased to 271, and the hands employed to 6,938.

Preparation of raw materials.

As regards the preparation of raw materials, the products of pastoral pursuits, the rate of increase has been not a little affected by the seasons, so that during the ten years under review, under the heads of boiling-down, fellmongering, tanning and woolwashing, the number of hands employed has only increased from 2,147 in 1877 to 2,413 in 1886, while that of the works has fallen from 276 in 1877 to 219 in 1886.

Breweries.

Brewing and the manufacture of raw and refined sugar are two industries which have increased during the last decennial period, and there can be no doubt that these branches of manufacture will further develop in the future. As regards the former, there were in 1877 38 breweries and bottlers of ale and porter in the Colony employing 456 hands, while in 1886 the number had risen to 74 and 987 respectively. The quantity of ale and beer imported from abroad during 1886 reached a value of £419,454, not a very large amount considering that £346,006 of it was for beer in bottle, which the colonial breweries have, so far, not attempted to produce on any extensive scale. The following table illustrates the position of this industry and its progress during the last decade.

No. 287.—Breweries and Bottling Establishments.

| Year. | Number of Establishments. | Hands Employed. | Quantity Manufactured, Ale, Beer, &c. |
|---|---|---|---|
| | | | Gallons. |
| 1881 | 50 | 637 | * |
| 1882 | 56 | 699 | * |
| 1883 | 59 | 747 | * |
| 1884 | 60 | 788 | * |
| 1885 | 70 | 805 | 11,000,000 |
| 1886 | 74 | 987 | 10,000,000 |

* Only approximately ascertained.

Soap and candles.

Soap and candles, which may be reckoned a purely colonial production, seeing that tallow is one of our staple products, experienced a satisfactory advance during the decade. The number of factories in existence in 1876 was 33, turning out 80,895 cwt. of soap and 1,546,832 lb. of candles. The production had increased to 155,430 cwt. and 2,199,282 lb. respectively in 1886. The value of the plant employed in the latter year was £89,745 and the steam developed was equivalent to 331 horse-power. The apparent decrease observable in the quantity manufactured is due to a change in the class of candles made, the common tallow candle being now almost entirely superseded by the stearine.

No. 288.—Soap and Candle Manufactories :—

| Year. | Number of Establishments. | Hands Employed. | Quantities Manufactured. | |
|---|---|---|---|---|
| | | | Soap. | Candles. |
| | | | cwt. | lb. |
| 1877 | 36 | 173 | 92,958 | 4,133,808 |
| 1878 | 34 | 180 | 77,655 | 3,951,696 |
| 1879 | 34 | 169 | 64,524 | 1,198,736 |
| 1880 | 38 | 203 | 114,118 | 923,776 |
| 1881 | 38 | 232 | 106,962 | 1,165,808 |
| 1882 | 40 | 263 | 112,513 | 3,066,224 |
| 1883 | 38 | 220 | 121,794 | 2,807,728 |
| 1884 | 34 | 204 | 131,244 | 2,759,680 |
| 1885 | 40 | 223 | 138,849 | 1,683,360 |
| 1886 | 46 | 337 | 155,430 | 2,199,282 |

Saw-mills.

The number of persons employed in the various timber districts, in saw-mills, &c., has also increased at a good ratio during the last ten years. The number of establishments in 1877 was 215, employing a total number of 1,694 persons, while in 1886 there were 323 mills, and the number of hands employed was 3,284. The value of plant in 1886 was £457,362, the horse-power 5,177, while the quantity of timber sawn, estimated at 110 million feet 1-inch thick.

No. 289.—Saw-mills:—

| | Year. | Number of Establishments | Hands employed. | Year. | Number of Establishments. | Hands employed |
|---|---|---|---|---|---|---|
| 7.97 | 1877 | 215 | 1,694 | 1882 | 9.0 334 | 3,013 |
| 9.10 | 1878 | 228 | 2,077 | 1883 | 9.0 370 | 3,318 |
| 8.9 | 1879 | 232 | 2,072 | 1884 | 9.2 376 | 3,477 |
| 10 | 1880 | 243 | 2,438 | 1885 | 9.1 415 | 3,775 |
| 8.5 | 1881 | 280 | 2,379 | 1886 | 10.1 323 | 3,272 |

Sugar-mills.

Sugar-growing is rapidly becoming an important industry. The number of works in existence in 1877 was 50, of which 24 used steam-power, whilst 26 were worked by cattle, and the number of workmen employed was 1,065. These increased, in the years 1884 and 1885, to 86 steam-mills and 19 worked by cattle, whilst the number of men employed, and the quantity of sugar and molasses turned out, correspondingly increased. But in 1886, the figures had been reduced to 57 steam, and only 7 mills worked by cattle, although the number of men employed had considerably increased, being 2,259, as against 1,065, in 1877, and the quantity of sugar manufactured had risen to 275,000 cwt., and 507,000 gallons of molasses, as against 93,960 cwt. of sugar, and 273,480 gallons of molasses in 1877.

The following table gives the particulars of this industry for the last decade :—

No. 290.—Sugar-mills :—

| Year. | Number of Mills. | | Horse-power. | | Quantity of Sugar Manufactured. | Quantity of Molasses Manufactured. | †Hands Employed. |
|---|---|---|---|---|---|---|---|
| | Worked by Steam. | Worked by Cattle. | Steam. | Cattle. | | | |
| | | | | | cwt. | gallons. | |
| 1877 | 24 | 26 | 503 | 108 | 150,744 | 345,543 | 1,065 |
| 1878 | 36 | 23 | 627 | 119 | 163,203 | 532,825 | 1,158 |
| 1879 | 44 | 21 | 637 | 185 | 153,833 | 440,506 | 1,432 |
| 1880 | 50 | 15 | 1,601 | 76 | 146,003 | 269,092 | 2,183 |
| 1881 | 59 | 17 | 1,432 | 63 | 159,048 | 354,402 | 1,665 |
| 1882 | 70 | 16 | 978 | 49 | 270,000 | 560,000 | 1,039 |
| 1883 | 79 | 14 | 2,651 | 44 | 280,000 | 580,000 | 1,285 |
| 1884 | 86 | 12 | 2,855 | 50 | 230,000 | 450,000 | 2,190 |
| 1885 | 83 | 19 | 2,598 | 32 | 369,280 | 635,000 | 2,634 |
| 1886 | 57 | 7 | 2,531 | 21 | 275,000 | 507,000 | 2,259 |

† Includes hands employed for only portion of the year.

Sugar Refineries.

The number of establishments for refining the raw sugar was only two in 1876, and has not increased within the last ten years; but the quantity of refined sugar turned out in 1877 was only 259,650 cwt., while in 1886 it reached 510,000 cwt., an increase of nearly 100 per cent. The value of the plant, as estimated in the latter year, was £160,000.

No. 291.—Sugar Refineries :—

| Year. | Number of Establishments. | Number of Hands employed. | Quantity of Sugar melted. |
|---|---|---|---|
| | | | cwt. |
| 1877 | 2 | 165 | 259,650 |
| 1878 | 2 | 153 | 324,480 |
| 1879 | 2 | 181 | 388,480 |
| 1880 | 2 | 166 | 414,400 |
| 1881 | 2 | 222 | 514,400 |
| 1882 | 2 | 235 | 470,000 |
| 1883 | 2 | 214 | 468,000 |
| 1884 | 2 | 172 | 370,000 |
| 1885 | 2 | 224 | 384,000 |
| 1886 | 2 | 214 | 510,000 |

Tendency to separate Sugar-growing and refining.

The general tendency, observable in almost all parts of the world where this industry is carried on, to concentrate the work in large and central establishments, is also apparent in New South Wales. In the older sugar-growing countries of the West Indies, Mauritius, and India, small mills are rapidly disappearing to make room for large central establishments, where business is strictly confined to the industrial process of sugar-making, the planters attending solely to the cultivation of the cane. In New South Wales, almost from the introduction of the sugar-growing industry, the manufacture of sugar has been in the hands of a powerful company, the Colonial Sugar Refining Company, whose mills on the Clarence and on the Richmond have been referred to in another part of this work. Most of the sugar manufactured in the Colony comes from this company's mills, who also own the only sugar refineries in New South Wales. The other establishments, whether worked by steam or cattle, are mostly small factories in which sugar of an inferior quality, which has afterwards to undergo the process of refining, is turned out.

Tobacco manufactories

The use of tobacco manufactured in the Colony has, to a very large extent, superseded that of imported tobacco. The amount of cigars and cigarettes made in the Colony is, on the other hand, very small compared with the total quantity of these commodities consumed. The weight of each description of tobacco used in the Colony during 1886 amounted to :—

| | Imported. | Made in the Colony. | Total. |
|---|---|---|---|
| | lb. | lb. | lb. |
| Tobacco | 847,061 | 2,044,240 | 2,891,301 |
| Cigars | 245,431 | 7,125 | 252,556 |
| Cigarettes | 45,398 | 5,340 | 50,738 |

Imported leaf largely used.

A large amount of imported leaf is used in the manufacture of tobacco in the Colony, the proportion during the past year being 651,514 lb. of imported leaf to 1,482,725 lb. of New South Wales leaf. The quantities of each kind of tobacco made in the Colony as well as the weight of leaf used in the manufacture will be found in the following table. The quantity of colonial leaf given includes stalks and stems, which are taken out in the process of manufacture. The proportion of leaf not used would be about twenty per cent. of the total weight of leaf.

No. 292.—Tobacco Factories :—

| Year. | No. of Tobacco Factories. | No. of Cigar and Cigarette Factories. | Hands Employed. | | Value of Plant. | Horse-power of Machinery. | Tobacco Leaf Used. | | Tobacco, Cigars, and Cigarettes, Manufactured. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Males. | Females. | | | Colonial Leaf. | Imported Leaf. | Article. | Quantity. | Value. |
| | | | | | £ | | lb. | lb. | | lb. | £ |
| 1885 | 16 | 9 | 411 | 257 | 62,980 | 120 | 1,825,854 | 672,485 | Tobacco ...... | 2,133,168 | 319,975 |
| | | | | | | | | | Cigars ......... | 9,402 | 5,641 |
| | | | | | | | | | Cigarettes...... | 6,901 | 3,105 |
| 1886 | 17 | 9 | 559 | 144 | 64,550 | 120 | 1,853,407 | 651,514 | Tobacco ...... | 2,044,240 | 306,636 |
| | | | | | | | | | Cigars ......... | 7,125 | 4,275 |
| | | | | | | | | | Cigarettes...... | 5,340 | 2,403 |

**Mills for grinding and dressing grain.**

The amount of mill-power for grinding and dressing grain is ample for treating the flour consumed in the Colony. The number of mills at work and the hands employed have varied slightly from year to year, but are now somewhat less than formerly. As the Colony does not produce sufficient grain for its own requirements, it is not at all probable that there will be any notable increase in the number of flour-mills, as those existing are mostly at work only part of their time. Wind and horse-power, as applied to the dressing of grain, have fallen into disuse, and though some water-mills still exist, the number is less than formerly, and is decreasing. Particulars of the mills in operation during the eleven years which closed with 1886 will be found in the subsequent table.

**Flour made in the Colony.**

The quantity of flour made in the Colony during the past ten years is shown in the following table.

No. 293.—Amount of Flour made in the Colony during the years 1877–86:—

| Year. | New South Wales Wheat treated. | Imported Wheat treated. | Total Wheat. | Total Flour made. |
|---|---|---|---|---|
| | Bushels. | Bushels. | Bushels. | Cwt. |
| 1877 | 2,209,969 | 696,973 | 2,906,942 | 7,267,355 |
| 1878 | 2,224,650 | 714,488 | 2,939,138 | 7,347,845 |
| 1879 | 3,147,761 | 390,618 | 3,538,379 | 8,845,948 |
| 1880 | 3,321,556 | 300,620 | 3,622,176 | 9,055,440 |
| 1881 | 3,400,934 | 108,096 | 3,509,030 | 8,772,575 |
| 1882 | 3,136,461 | 629,841 | 3,766,302 | 9,415,755 |
| 1883 | 3,733,171 | 175,138 | 3,908,309 | 9,770,773 |
| 1884 | 3,983,246 | 418,434 | 4,401,680 | 11,004,200 |
| 1885 | 3,927,273 | 497,775 | 4,425,048 | 11,062,620 |
| 1886 | 2,402,057 | 984,773 | 3,386,820 | 8,467,075 |

### No. 294.—Mills for Grinding and Dressing Grain :—

| Year. | Steam. |  | Water. |  | Wind. |  | Horse. |  | Total. |  | Number of pairs of Stones in operation. | Number of Hands Employed. |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | No. | Horse-power. | No. | Horse-power. | No. | Horse-power. | No. | Horse-power. | No. | Horse-power. |  | Males. | Females. | Total. |
| 1876 | 150 | 24,81 | 8 | 77 | 2 | 20 | 4 | 12 | 164 | 2,590 | 355 | ...... | ... .. | ...... |
| 1877 | 151 | 2,529 | 8 | 80 | 1 | 10 | 3 | 4 | 163 | 2,623 | 382 | 623 | ...... | 623 |
| 1878 | 152 | 2,577 | 10 | 88 | 1 | 10 | 2 | 2 | 165 | 2,677 | 395 | 657 | 7 | 664 |
| 1879 | 147 | 2,580 | 9 | 84 | 1 | 10 | 4 | 10 | 161 | 2,684 | 371 | 544 | 2 | 546 |
| 1880 | 140 | 2,551 | 7 | 88 | 1 | 10 | 2 | 10 | 150 | 2,659 | 347 | 566 | ...... | 566 |
| 1881 | 148 | 2,806 | 9 | 95 | 1 | 10 | 1 | 2 | 159 | 2,913 | 472 | 685 | 10 | 695 |
| 1882 | 156 | 2,929 | 7 | 72 | 1 | 10 | 2 | 14 | 166 | 3,025 | 403 | 604 | 9 | 703 |
| 1883 | 145 | 2,759 | 9 | 88 | ... | ...... | ... | ...... | 154 | 2,847 | 390 | 685 | ...... | 685 |
| 1884 | 153 | 3,109 | 8 | 98 | ... | ...... | ... | ...... | 161 | 3,207 | 404 | 659 | 3 | 662 |
| 1885 | 152 | 3,026 | 7 | 66 | ... | ...... | ... | ...... | 159 | 3,092 | 370 | 662 | ...... | 662 |
| 1886 | † 128 | 2,602 | 5 | 48 | ... | ...... | ... | ...... | 133 | 2,650 | 300 | 570 | 1 | 571 |

† Eleven not working

### *OCCUPATIONS OF THE PEOPLE.*

erfect data.

To obtain even a fair approximation of the number of persons engaged in various walks of life in this Colony is a work of no small difficulty, the information which might serve as a basis for a calculation of this kind being of a very meagre and incomplete description. The result of an attempt at solving this question must therefore be considered as only approximate, for until another census of the population of the Colony can be taken, anything like an exact knowledge of the occupations of the people cannot be arrived at. With the data in hand, however, the following approximation has been compiled, which will be sufficient, at any rate, to give an idea of the manner in which the people of New South Wales are occupied:—

| | |
|---|---|
| Total population | 1,001,966 |
| Government and municipal officers and employés* | 24,000 |
| Engaged in defence and protection | 1,956 |
| Clergymen and others engaged in religion | 999 |
| Lawyers, Law Court officers, etc. | 1,177 |
| Physicians, surgeons, druggists, etc. | 1,373 |
| Authors, scientific persons, artists, etc. | 2,355 |
| Domestic duties | 317,524 |
| Scholars under tuition | 244,985 |
| Engaged in board and lodging | 5,494 |
| ,, attendance | 45,234 |
| ,, mercantile pursuits | 30,756 |
| ,, maritime pursuits | 5,985 |
| ,, agricultural pursuits | 119,513 |
| ,, pastoral pursuits and about animals | 30,810 |
| ,, mining | 19,417 |
| Other occupations not stated | 150,388 |

* Includes persons employed in the railway and dredge service.

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and for
ur.

In New South Wales, as in most other Australian Colonies, the rapid settlement of the country has created a demand for labour of all kinds, which could not be satisfied except by a constant accession of labourers from other countries. This demand, which has been continuous for many years, has resulted in the establishment of a rate of wages much higher than is ordinarily found in older lands. The wave of depression which affected most countries during 1885-6 did not leave this Colony untouched, and the labouring classes shared largely in the general suffering. Although the normal rate of wages showed no decline, the actual amount which workmen were willing to accept in most trades was considerably below the current rates. The revival of prosperity which came with the year 1887 has had a beneficial effect, and the following rates, which are those accepted by the various trade and labour organizations, may be taken as now current in the Colony :—

Wages accepted by trades organization.

No. 295.—Nominal Rates of Wages of various Trades, &c., during 1886.

| | | |
|---|---|---|
| Stonemasons | 11/- | per day of 8 hours. |
| Bricklayers | 11/- | ,, ,, |
| Plasterers | 11/- | ,, ,, |
| Quarrymen | 7/- to 10/- | ,, ,, |
| Carpenters and joiners | 9/- | ,, ,, |
| Painters | 9/- | ,, ,, |
| Labourers | 8/- | ,, ,, |
| Plumbers, gasfitters, and galvanized-iron workers | 10/- to 11/- | ,, ,, |
| Slaters | 10/- to 12/- | ,, ,, |
| Iron-moulders | 8/- to 9/4 | ,, ,, |
| Boiler-makers and iron shipbuilders | 10/- | ,, ,, |
| Engineers | 9/- to 12/- | ,, ,, |
| Labourers working with engineers, boilermakers, &c. | 5/- to 7/- | ,, ,, |
| Shipwrights | 11/- to 12/- | ,, ,, |
| Coachmakers, builders, wheelwrights, smiths, painters, and trimmers | 6/- to 10/- | ,, ,, |
| Wheelwrights and blacksmiths | 35/- to 60/- | per week, of 9 hours per day. |
| Farriers | 35/- to 55/- | ,, 8 ,, |
| Pattern-makers | 8/- to 10/- | per day of 8 hours. |
| Brass founders and finishers | 8/- to 10/- | ,, ,, |
| Tinsmiths and sheet-iron workers | 7/- to 9/- | ,, ,, |
| Ironworkers | 8d. to 1/- | per hour. |
| Saddle, collar, and harness makers | 30/- to 50/- | per week of 54 hours. |
| Sailmakers | 30/- to 50/- | ,, ,, |

| | |
|---|---|
| **Tailors** | **50/- to 60/- per week, piece work.** |
| **Pressers** | **50/- to 60/- „ „** |
| **Silk hatters** | **53/- to 70/- „ „** |
| **Upholsterers** | **10/- to 12/- per day.** |
| **Compositors** | **25/- to 50/- per week, of 48 hours; or piece work, 1/1 per thousand day, and 1/2 per thousand night work.** |
| **Coopers** | **40/- to 50/- per week, 1/- to 1/3 per hour.** |
| **Coal-miners** | **8d. to 1/3 per hour.** |
| **Coal lumpers and trimmers** | **1/3 per hour day, 1/6 per hour night work.** |
| **Wharf labourers** | **1/- per hour.** |
| **Bootmakers, &c. (factory hands)** | **25/- to 55/- per week.** |
| **Cooks and pastry-cooks** | **30/- to 60/- „** |
| **Drapers** | **30/- to 70/- „** |
| **Furniture-makers (cabinet-makers, French-polishers)** | **25/- to 50/- „** |
| **Tobacco operatives** | **25/- to 50/- „** |
| **Gas-stokers** | **8d. to 1/- per hour, 8-hour shifts.** |
| **Brick and pipe makers** | **10½d. to 1/- per hour.** |
| **Sawyers and mill-workers** | **8d. to 1/3 „** |
| **Butchers** | **8d. to 1/- „** |

**Comparatively high rate of wages.**

An inspection of the preceding table at once reveals the fact that the labouring classes in this community are far in advance of their fellow-workmen in older countries, in other respects, besides the mere question of better wages. In nearly all departments of labour the daily toil is restricted to eight hours, and though there is no statutory recognition of this time as the limit of a man's labour, it is tacitly acknowledged even by the Governments of the various colonies.

**Eight-hour system generally adopted.**

Labour organizations and trades' unions are particularly strong in the two provinces of New South Wales and Victoria. Every year a day is set apart in these colonies for a public demonstration of the eight-hour system, in which thousands of workmen take part. A stranger arriving in Sydney on that day could hardly fail to be greatly impressed with the importance of the movement and the favour with which it is regarded by the whole community. The benefits arising from a high rate of wages are further enhanced by the comparative cheapness in the cost of living, which, except perhaps in the matter of house rent, is not increased in proportion to the earnings of the labouring class. The result of this happy state is visible on all sides, for in no other land can a better-dressed, better-fed, and more contented-looking class than the working people of New South Wales be found. This fact is plainly revealed whenever a holiday attracts crowds to the streets of the metropolis or to the numerous resorts of amusement in and around the city.

**Cost of living.**

## *SOCIAL CONDITION.*

**Distribution of wealth.**

It will be seen from the foregoing pages that the material prosperity of New South Wales compares favourably with that of any other country, however fortunate may be its lot. But in one particular the Colony, in common with all the provinces of Australia, differs greatly from other countries, especially those of the Old World. Wealth is widely distributed, and the contrast between rich and poor, which seems so peculiar a phase of modern civilization, finds no parallel in these southern lands. That there is poverty in these colonies is undeniable and inevitable; but no one in Australia is born to poverty, and that hereditary pauper class which forms so grave a menace to the freedom of many States has therefore no existence here.

**Anxiety of the Government for prosperity of the people.**

The Government of the Colony exists only for the advantage of the people. But its anxiety to foster material prosperity in no wise blinds it to the necessity of forwarding that psychical progress, without which material advancement would be incomplete. The solicitude manifested for the spread of education and enlightenment, and the impartial toleration meted out to all forms of religious belief, leave nothing in these respects to be desired. Nor has the care of those whom old age or misfortune has affected been overlooked. Hospitals are found in every important town, supported by the liberality of the State and the charity of its people. During 1886, the sum of £100,000 was expended by the State for charitable purposes, while a similar amount was subscribed by private persons. Neglected and orphan children are also objects of the State's solicitude, and are supported by its bounty. The admirable system of relief organized under the State Children's Relief Board bids fair to solve the difficult and painful problem of juvenile destitution and juvenile crime.

Intellectual progress of the people.

The intellectual progress of the people has been even more rapid than their material advancement. Nor has this progress been confined to those sciences which are necessary for material prosperity. The State, conscious of the value of literature in softening the minds and manners of the people, encourages with great liberality the establishment of libraries and reading rooms. In spite of their busy lives, the colonists of New South Wales have done something towards increasing the general wealth of the English literature, and with less stirring times—inevitable to the building up of a nation—and the existence of a leisured class, the fruits of the care now lavished upon intellectual culture will be found in literature worthy of Australia.

More truly can it be said of the Australian than of any other people that their destiny is in their own hands. Their country is most happily situated. Unlike most other lands, it stands in danger from no enemies upon its border, nor is it possible that its Government should ever engage in a struggle to subvert the liberties of its people. Its colonization in these latter days augurs a future free from Old World strifes and traditional hatreds, and thus, happy in its situation and most fortunate in its wealth, it may await its future in calm confidence.

# PART XVII.

## Law and Crime.

THE law of New South Wales permits proceedings against any person charged with crime to be initiated either by arrest or by summons. During 1886, there were 81,503 cases dealt with by the magistrates; in 48,854 of these, the persons charged with offences were arrested, and in 24,681 cases they were summoned by the police; while in the remaining 7,968 cases proceedings were taken by private persons.

### *ARRESTS.*

Persons brought before magistrates.

Out of 81,503 persons brought before the magistrates of the Colony 79,909 were dealt with summarily, and convictions recorded in 62,268 cases; while 17,641 cases were dismissed either on their merits, or for want of prosecution; in the remaining cases, 1,594 in number, the persons concerned were committed for trial in the higher Courts of the Colony. Dividing the offences into three sub-divisions of those committed against the person, those against property, and offences against good order or government, the numbers of persons charged under each head, whose cases were dealt with during 1886, were :—

No. 296.—Number of Persons brought before the Magistrates' Courts, and manner in which they were dealt with, 1886.

| Offences. | Total number of persons brought before the Magistrates' Courts. | Number of persons. | | | |
|---|---|---|---|---|---|
| | | Discharged for want of prosecution or want of evidence. | Whose cases were dismissed on the merits. | Summarily convicted. | Committed for trial. |
| Against the person ... | 10,135 | 3,071 | 1,429 | 5,187 | 448 |
| Against property ...... | 7,535 | 1,743 | 1,139 | 3,676 | 977 |
| Other cases* ............ | 60,833 | 6,809 | 3,450 | 53,405 | 169 |
| Total number of persons summoned or apprehended | 81,503 | 11,623 | 6,018 | 62,268 | 1,594 |

* Not including cases brought up for lunacy.

Civil actions are not included in the above table, but it includes arrest or summonses for breaches of various Acts, and for other offences, which, from a moral point of view, can hardly be reckoned crimes, although they are such in the eyes of the law.

Summary convictions.

The number of summary convictions for the graver class of offences, viz., those against persons and property, show no increase during 1886; on the contrary they are proportionately less than in any year shown in the following table. No such decrease is visible in the offences against good order.

No. 297.—Summary Convictions before Magistrates:—

| Year. | Offences against the person. | Offences against property. | Other offences. | Year. | Offences against the person. | Offences against property. | Other offences. |
|---|---|---|---|---|---|---|---|
| 1876 | 3,931 | 2,694 | 23,779 | 1882 | 5,350 | 4,014 | 40,762 |
| 1877 | 4,567 | 2,788 | 25,648 | 1883 | 6,257 | 3,395 | 45,811 |
| 1878 | 5,014 | 3,087 | 29,823 | 1884 | 5,810 | 3,594 | 48,502 |
| 1879 | 4,885 | 3,217 | 30,726 | 1885 | 5,159 | 3,694 | 50,537 |
| 1880 | 5,151 | 3,286 | 33,768 | 1886 | 5,187 | 3,676 | 53,405 |
| 1881 | 5,239 | 3,453 | 42,438 | | | | |

Arrests by police.

The number of arrests made by the police was less during 1886 than in the previous year, and the per-centage of the whole population was smaller than in any year since 1880, as will be seen below:—

No. 298.—Arrests by Police.

| Year. | Arrests. | Proportion of whole population. | Year. | Arrests. | Proportion of whole. population. |
|---|---|---|---|---|---|
| 1876 | 26,993 | 4·46 | 1882 | 39,758 | 5·00 |
| 1877 | 28,349 | 4·50 | 1883 | 43,177 | 5·17 |
| 1878 | 30,718 | 4·66 | 1884 | 40,199 | 5·24 |
| 1879 | 32,860 | 4·75 | 1885 | 48,261 | 5·18 |
| 1880 | 35,774 | 4·92 | 1886 | 48,854 | 4·99 |
| 1881 | 41,402 | 5·44 | | | |

Number of Police.

The number of police in the Colony during the years 1884-5-6 was

| Year. | Metropolitan. | Country. | Total. |
|---|---|---|---|
| 1884 | 423 | 947 | 1,370 |
| 1885 | 466 | 977 | 1,443 |
| 1886 | 476 | 986 | 1,462 |

Considering the large area of the Colony, the number of police required for the protection of life and property in New South Wales compares favourably with that of the other colonies. The following figures show the proportion to the total population of four of the colonies :—

| | | | |
|---|---|---|---|
| New South Wales.................. | 1 police to | 670 | civilians. |
| Victoria.............................. | „ | 797 | „ |
| Queensland ........................ | „ | 500 | „ |
| South Australia.................... | „ | 762 | „ |

Ages of persons arrested.

The ages of persons arrested during the year 1886 is given below. It will be seen that the most serious offences were committed by persons between the ages of twenty and thirty, while those against good order, consisting chiefly of drunkenness, were committed by persons from thirty to fifty years.

No. 299.—Ages of Persons Apprehended for Various Classes of Offences, during the year 1886:—

| Offences. | Ages. | | | | | | | Total apprehensions. |
|---|---|---|---|---|---|---|---|---|
| | Under 15 | 15-20. | 20-30. | 30-40. | 40-50. | 50-60 | Over 60. | |
| Against the person...... | 14 | 268 | 1,360 | 729 | 448 | 163 | 61 | 3,043 |
| Against property, with violence .............. | 10 | 41 | 113 | 55 | 25 | 13 | 4 | 261 |
| Against property, without violence ............ | 283 | 702 | 1,966 | 1,061 | 564 | 240 | 158 | 4,974 |
| Forgery and offences against the currency | 6 | 20 | 57 | 39 | 17 | 7 | 12 | 158 |
| Against good order, including drunkenness | 484 | 1,778 | 10,524 | 10,307 | 8,614 | 4,450 | 2,400 | 38,557 |
| Not included in the preceding ............... | 5 | 76 | 624 | 572 | 366 | 152 | 66 | 1,861 |
| Total......... | 802 | 2,885 | 14,644 | 12,763 | 10,034 | 5,025 | 2,701 | 48,854 |

**Decline in juvenile crime.**

The proportion of offences committed at the respective ages is given below, and it will be satisfactory to note the decline in arrests of children from ten to fifteen years as compared with the arrests at all ages.

No. 300.—Per-centage of Arrests at various Ages to Total Arrests:—

| Year. | Years 10-15. | Years 15-20. | Years 20-30. | Years 30-40. | Years 40-50. | Years 50-60. | Years over 60. |
|---|---|---|---|---|---|---|---|
| 1879 | 2·20 | 6·76 | 28·24 | 27·93 | 19·18 | 9·33 | 3·36 |
| 1880 | 2·12 | 6·94 | 29·24 | 26·90 | 18·69 | 9·77 | 6·34 |
| 1881 | 2·11 | 5·43 | 28·98 | 27·22 | 20·31 | 9·74 | 6·21 |
| 1882 | 1·93 | 4·83 | 27·82 | 26·58 | 20·79 | 10·69 | 7·36 |
| 1883 | 1·94 | 5·80 | 28·98 | 26·08 | 20·45 | 10·40 | 6·35 |
| 1884 | 1·68 | 5·81 | 29·51 | 26·02 | 20·35 | 10·61 | 6·01 |
| 1885 | 1·73 | 5·38 | 30·25 | 26·47 | 20·42 | 9·77 | 5·98 |
| 1886 | 1·64 | 5·90 | 29·98 | 26·13 | 20·54 | 10·28 | 5·53 |

Absence of serious crime amongst native born population.

The native-born population of New South Wales probably numbers not less than 64 per cent. of the whole, while the persons arrested during 1886 who were born in the Colony numbered 13,748 out of a total of 48,854 arrests, or 28·14 per cent. The native countries of all persons apprehended during 1886 will be found in the following table, as well as the class of offence for which the arrests were made:—

## No. 301.—Birthplace of Persons Apprehended, 1886.

| Country. | Against persons. | Against property, with violence. | Against property, without violence. | Forgery and offences against the currency. | Against good order, including drunkenness. | Not included above. | Total. |
|---|---|---|---|---|---|---|---|
| New South Wales | 1,189 | 102 | 2,071 | 71 | 9,842 | 473 | 13,748 |
| Other Australian Colonies | 197 | 36 | 445 | 17 | 1,761 | 94 | 2,550 |
| England | 624 | 76 | 1,013 | 34 | 9,066 | 530 | 11,343 |
| Ireland | 538 | 13 | 730 | 14 | 11,744 | 400 | 13,439 |
| Scotland | 170 | 12 | 233 | 4 | 3,234 | 124 | 3,777 |
| Other British possessions | 64 | 6 | 84 | ... | 539 | 34 | 727 |
| France | 23 | 2 | 32 | 2 | 200 | 13 | 272 |
| Germany | 54 | 2 | 84 | 4 | 456 | 45 | 645 |
| China | 43 | 1 | 55 | 1 | 182 | 34 | 316 |
| Other foreign countries | 141 | 11 | 227 | 11 | 1,533 | 114 | 2,037 |
| Total | 3,043 | 261 | 4,974 | 158 | 38,557 | 1,861 | 48,854 |

Nominal religious professions of prisoners.

The nominal religious profession of each person arrested is ascertained and entered in the charge-sheet. During 1886, the arrests of persons belonging to each of the various denominations were:—

### No. 302.—Religions of Persons Apprehended, 1886.

| Religion. | Against the person. | Against property, with violence. | Against property, without violence. | Forgery and offences against the currency. | Against good order including drunkenness. | Not included above. | Total. |
|---|---|---|---|---|---|---|---|
| Church of England | 1,161 | 123 | 2,113 | 85 | 13,809 | 820 | 18,111 |
| Presbyterians ...... | 228 | 22 | 339 | 3 | 3,624 | 169 | 4,385 |
| Wesleyans ............ | 51 | 6 | 99 | 3 | 644 | 40 | 843 |
| Independents ...... | 1 | ............ | 2 | ............ | 36 | 2 | 41 |
| Baptists ............. | 12 | 1 | 13 | 1 | 73 | 5 | 105 |
| Other Protestants... | 61 | 1 | 70 | 2 | 638 | 47 | 819 |
| Roman Catholics ... | 1,356 | 94 | 2,128 | 55 | 18,195 | 682 | 22,510 |
| Jews ................. | 20 | 3 | 45 | 3 | 73 | 4 | 148 |
| Pagans ............... | 48 | 4 | 66 | 5 | 174 | 31 | 328 |
| Other persuasions, no religion, unknown.. | 105 | 7 | 99 | 1 | 1,291 | 61 | 1,564 |
| Total........ | 3,043 | 261 | 4,974 | 158 | 38,557 | 1,861 | 48,854 |

Education of persons arrested.

As far as possible the degree of education of those who were arrested has also been obtained. Four grades of education are adopted for classification purposes, and the number comprised in each class during the years from 1876 to 1886 is given below.

No. 303.—Degrees of Education of Persons Arrested, 1876–86 :—

| Year. | Neither read nor write. | Read only. | Read and write. | Superior education. | Total arrests. |
|---|---|---|---|---|---|
| 1876 | 3,841 | 1,320 | 21,832 | ......... | 26,993 |
| 1877 | 3,842 | 1,269 | 23,238 | ......... | 28,349 |
| 1878 | 4,017 | 1,529 | 25,172 | ......... | 30,718 |
| 1879 | 3,493 | 1,230 | 27,984 | 153 | 32,860 |
| 1880 | 4,065 | 1,197 | 30,350 | 162 | 35,774 |
| 1881 | 4,034 | 1,123 | 36,083 | 162 | 41,402 |
| 1882 | 4,059 | 964 | 34,553 | 182 | 39,758 |
| 1883 | 3,859 | 1,058 | 38,071 | 189 | 43,177 |
| 1884 | 3,871 | 1,096 | 41,030 | 202 | 40,199 |
| 1885 | 3,925 | 937 | 43,185 | 214 | 48,261 |
| 1886 | 4,142 | 916 | 43,588 | 208 | 48,854 |

Effect of Education on crime.

A superficial glance at the figures would seem to show that the progress of education has not been attended with that decrease in crime which the friends of education confidently assert follows in its train. This view of the case is quite untenable, for although the proportion of persons arrested who can read and write has much increased of late years, this is due to the spread of education even amongst those whose environment offers inducement to the commission of crime.

### No. 304.—Per-centage Arrested of each Degree of Education, 1876–86 :—

| Year. | Neither read nor write. | Read only. | Superior education. | Year. | Neither read nor write. | Read only. | Superior education. |
|---|---|---|---|---|---|---|---|
| 1876 | 14·22 | 4·89 | 80·89 | 1882 | 10·20 | 2·42 | 87·38 |
| 1877 | 13·55 | 4·47 | 81·98 | 1883 | 8·93 | 2·45 | 88·62 |
| 1878 | 13·07 | 4·97 | 81·96 | 1884 | 8·37 | 2·37 | 89·26 |
| 1879 | 10·62 | 3·74 | 85·64 | 1885 | 8·13 | 1·94 | 89·93 |
| 1880 | 11·36 | 3·34 | 85·30 | 1886 | 8·49 | 1·87 | 89·64 |
| 1881 | 9·74 | 2·71 | 87·55 | | | | |

**Effect of Education on crime.**

**The best proof of the effect of the spread of education on crime is the notable decrease in the number of committals and convictions for serious offences, which has for many years been observable. Although the direct effect of the spread of enlightenment cannot be otherwise gauged, there is ample evidence to warrant the assumption that education is doing its work as an active leaven throughout the community.**

**Drunkenness.**

The question of the relative prevalence of drunkenness, as tested by the number of persons arrested for that offence in the different colonies, has received of late no little attention, and it would appear that New South Wales in this regard holds a bad pre-eminence. The per-centage of arrests for drunkenness in the different colonies compiled over a period of about ten years was :—

### No. 305.—Arrests for Drunkenness in Australian Colonies.

| | Arrests, per 1,000 of population. |
|---|---|
| New South Wales | 27·0 |
| Victoria | 13·6 |
| Queensland | 15·8 |
| South Australia | 15·2 |
| Tasmania | 13·9 |
| New Zealand | 14·9 |

Deduction from number of arrests misleading.

These figures are entirely misleading as far as their application to the question of the comparative sobriety of the different colonies is concerned, and if they convey any meaning at all, it is that the stringency of the laws, or their administration, is greater in the proportion of nearly two to one in New South Wales than in almost any other colony. The proof of this is not far to seek. The consumption of intoxicants per head is largest in Victoria, where the least proportion of arrests are made, while New South Wales has a consumption less than any other Colony, New Zealand and Tasmania excepted, as will be seen from the following table.

No. 306.—Consumption of Intoxicating Drink in the Australian Colonies, 1885–86 :—

| Colony. | Average consumption per head. | | | |
|---|---|---|---|---|
| | Spirits. | Beer. | Wine. | Total equivalent in alcohol (proof) |
| | Gallons. | Gallons. | Gallons. | Gallons. |
| New South Wales* | 1·20 | 12·85 | 0·72 | 3·23 |
| Victoria* ............ | 1·09 | 16·29 | 1·24 | 3·80 |
| Queensland ......... | 1·81 | 10·16 | 0·62 | 3·39 |
| South Australia ... | 0·80 | 14·37 | 1·59 | 3·32 |
| New Zealand ...... | 0·87 | 8·61 | 0·26 | 2·18 |
| Tasmania ............ | 0·70 | 10·00 | 0·14 | 2·17 |

* 1886. Other colonies 1885.

These figures at once dispose of the theory so persistently put forward as to the excessive prevalence of drunkenness in this Colony, and the more effectually when it is borne in mind that the number of males engaged in laborious work is far larger here than in any other colony.

Arrests for drunkenness in towns.

The persons arrested for drunkenness are chiefly residents in or near large towns, and it is only natural to expect that, with an increase in the number and population of the towns, there will be an increase in the arrests for drunkenness. The number of arrests during each year since 1876 is shown in the following table, and it will be satisfactory to note the great decrease in the

**Female drunkards decreasing.**

per-centage of females arrested. No decrease is found in the proportion of males arrested, but this is possibly due to the greater increase in the urban than in the rural population, and consequently the larger number of persons whose inebriety has come under the attention of the local police.

No. 307.—Number of Persons Arrested for Drunkenness for the period 1876–86, with per-centage of Total Population :—

| Year. | Total arrests. | Males. | Females. | Per-centage of total arrests to whole population. | Per-centage of males arrested to total male population. | Per-centage of females arrested to total female population. |
|---|---|---|---|---|---|---|
| 1876 | 16,171 | 12,546 | 3,625 | 2·67 | 3·82 | 1·31 |
| 1877 | 16,696 | 12,726 | 3,970 | 2·65 | 3·72 | 1·38 |
| 1878 | 17,224 | 13,166 | 4,108 | 2·61 | 3·67 | 1·37 |
| 1879 | 17,715 | 13,574 | 4,141 | 2·56 | 3·61 | 1·31 |
| 1880 | 18,777 | 14,801 | 3,976 | 2·58 | 3·72 | 1·21 |
| 1881 | 22,560 | 18,200 | 4,360 | 2·96 | 4·36 | 1·26 |
| 1882 | 21,393 | 17,574 | 3,819 | 2·69 | 4·03 | 1·06 |
| 1883 | 23,178 | 19,244 | 3,934 | 2·77 | 4·21 | 1·04 |
| 1884 | 24,438 | 20,261 | 4,177 | 2·77 | 4·19 | 1·04 |
| 1885 | 26,291 | 21,944 | 4,347 | 2·82 | 4·29 | 1·03 |
| 1886 | 26,310 | 21,879 | 4,431 | 2.69 | 4·06 | 1·01 |

Consumption of intoxicants.

The quantity of spirits consumed per head of population in 1886 was hardly 75 per cent. of the consumption ten years previously, and the decline has been fairly regular, as will be seen from the following table :—

No. 308.—Consumption of Spirits per Head.

| Year. | Imported. | Colonial. | Total. | Year. | Imported. | Colonial. | Total. |
|---|---|---|---|---|---|---|---|
| | Gallons. | Gallons. | Gallons. | | Gallons. | Gallons. | Gallons. |
| 1877 | 1·61 | ·026 | 1·64 | 1882 | 1·45 | ·012 | 1·46 |
| 1878 | 1·65 | ·012 | 1·66 | 1883 | 1·43 | ·024 | 1·45 |
| 1879 | 1·49 | ·011 | 1·50 | 1884 | 1·41 | ·020 | 1·43 |
| 1880 | 1·37 | ·017 | 1·38 | 1885 | 1·29 | ·015 | 1·30 |
| 1881 | 1·45 | ·008 | 1·46 | 1886 | 1·19 | ·010 | 1·20 |

There has also been, in all probability, a falling off in the amount of beer and wine consumed, but the statistics which would illustrate this view are available for only a few years. The total amount of intoxicants consumed in the Colony can best be compared by reducing the various kinds of drink to the common level of proof spirit. The average consumption of spirit per inhabitant during the last four years was :—

| Year. | Gallons. |
|---|---|
| 1883 | 3·52 |
| 1884 | 3·53 |
| 1885 | 3·37 |
| 1886 | 3·23 |

**Decrease in drunkenness.**

Taking all circumstances into view it is probable that the amount of drunkenness in the Colony is decreasing, in spite of the apparent testimony to the contrary shown in the per-centage of persons arrested. The number of persons who render themselves liable to arrest may be fairly assumed to be in direct proportion to the amount of intoxicants consumed, and a decrease in consumption is necessarily a sign of increased sobriety.

**Habitual drunkenness.**

The offence of habitual drunkenness has declined perceptibly, as will be seen from the following table, so that fewer persons were arrested during 1886 than 1879.

No. 309.—Number of Persons Arrested for Habitual Drunkenness, with Per-centage of Arrests to Total Arrests for Drunkenness, 1879–86 :—

| Year. | Number. | Per-centage of arrests to total arrests for drunkenness. | Year. | Number. | Per-centage of arrests to total arrests for drunkenness. |
|---|---|---|---|---|---|
| 1879 | 136 | 0·76 | 1883 | 100 | 0·43 |
| 1880 | 107 | 0·56 | 1884 | 108 | 0·44 |
| 1881 | 101 | 0·54 | 1885 | 116 | 0·44 |
| 1882 | 141 | 0·65 | 1886 | 113 | 0·43 |

## *PUNISHMENTS.*

ments
d by
ated.

Of the 81,503 persons brought before the magistrates of the Colony during 1886, 62,268 were summarily convicted, and of these, 4,258 were imprisoned without the option of a fine, while four of the latter were whipped. In the great majority of cases, fines were inflicted, or imprisonment with the option of paying a fine instead. The nature of the punishments, with the offences for which they were awarded, are given in the following table, for the year 1886.

**No. 310.—Number of Summary Convictions, Nature of Offences and of Punishments inflicted by Magistrates in 1886 :—**

| Punishment. | Total number of punishments. | For offences against the person. | For offences against property. | For other offences. |
|---|---|---|---|---|
| **Fine** | **35,280** | **3,155** | **1,219** | **30,906** |
| **Imprisonment, in lieu of fine or surety** | **20,702** | **1,067** | **450** | **19,185** |
| Peremptory imprisonment | 4,254 | 545 | 1,850 | 1,859 |
| Whipping | 1 | 1 | ......... | ......... |
| Imprisonment, with whipping | 3 | 2 | ......... | 1 |
| Bound over, with or without sureties | 417 | 249 | 36 | 132 |
| Other punishments | 1,611 | 168 | 121 | 1,322 |
| Total | 62,268 | 5,187 | 3,676 | 53,405 |

ases in which
nes were in-
icted.

The option of paying a fine was availed of in 8,880 cases out of 20,702. The remaining 11,822 suffered imprisonment, in addition to the 4,258 sentenced to peremptory imprisonment, or to be whipped, making a total of 16,080 persons imprisoned out of 62,268 summarily dealt with by magistrates, or 25·8 per cent.

Decrease in committal for trial.

Omitting from consideration summons cases, and dealing only with arrests by the police, three facts are noticeable—that the percentage of arrests to the total population has fluctuated considerably during the past ten years, though there has been a slight tendency towards decrease of late years; that the number of convictions obtained is now proportionately greater than formerly; and that the number of committals for trial to the superior courts shows a remarkable tendency to decrease. The following table gives the average for eleven years.

No. 311.—Proportion of Convictions and Committals in Magistrates' Courts, compared with Arrests :—

| Year. | Arrests. | Summarily convicted. | Summarily acquitted or discharged. | Committal. |
|---|---|---|---|---|
| | Per-centage of arrests to the whole population. | Per-centage of summary convictions to total arrests. | Per-centage of those acquitted or discharged to total arrests. | Per-centage to total arrests. |
| 1876 | 4·46 | 72·12 | 23·20 | 4·68 |
| 1877 | 4·50 | 73·09 | 22·07 | 4·83 |
| 1878 | 4·66 | 75·58 | 18·94 | 5·48 |
| 1879 | 4·75 | 77·63 | 17·52 | 4·85 |
| 1880 | 4·92 | 76·94 | 18·36 | 4·70 |
| 1881 | 5·44 | 79·86 | 16·29 | 3·85 |
| 1882 | 5·00 | 78·94 | 17·07 | 3·99 |
| 1883 | 5·17 | 82·08 | 14·26 | 3·66 |
| 1884 | 5·24 | 80·99 | 15·59 | 3·42 |
| 1885 | 5·18 | 82·89 | 14·07 | 3·04 |
| 1886 | 4·99 | 82·24 | 14·79 | 2·97 |

Decrease in committals for trial.

The proportion of offences deemed of sufficient gravity to be tried by a jury has largely decreased during the past twenty-five years, and the proportion of prisoners convicted also shows a substantial reduction. This will be plainly seen from a consideration of the following table.

No. 312.—Committals and Convictions, 1861 to 1886 :—

| Year. | Committals for trial. | Convictions. | Proportion of population committed. | Proportion of population convicted. |
|---|---|---|---|---|
| | | | Per 10,000 of population. | Per 10,000 of population. |
| 1861 | 820 | 437 | 23·2 | 12·3 |
| 1862 | 879 | 514 | 24·2 | 14·1 |
| 1863 | 887 | 497 | 23·8 | 13·3 |
| 1864 | 975 | 590 | 25·3 | 15·3 |
| 1865 | 1,123 | 686 | 27·7 | 19·9 |
| 1866 | 1,255 | 770 | 29·9 | 18·3 |
| 1867 | 1,180 | 702 | 27·0 | 16·0 |
| 1868 | 1,006 | 601 | 22·1 | 13·2 |
| 1869 | 1,112 | 682 | 23·5 | 14·4 |
| 1870 | 1,037 | 601 | 21·1 | 12·2 |
| 1871 | 1,084 | 628 | 21·3 | 12·3 |
| 1872 | 1,073 | 643 | 20·3 | 12·2 |
| 1873 | 1,166 | 647 | 21·4 | 11·8 |
| 1874 | 1,311 | 700 | 23·2 | 12·4 |
| 1875 | 1,245 | 707 | 21·2 | 12·0 |
| 1876 | 1,391 | 810 | 23·0 | 13·4 |
| 1877 | 1,411 | 817 | 22·4 | 12·9 |
| 1878 | 1,740 | 986 | 26·4 | 14·9 |
| 1879 | 1,743 | 1,090 | 25·2 | 15·7 |
| 1880 | 1,717 | 1,152 | 23·6 | 15·8 |
| 1881 | 1,626 | 1,066 | 21·3 | 14·0 |
| 1882 | 1,724 | 1,065 | 21·6 | 13·4 |
| 1883 | 1,606 | 1,012 | 19·2 | 12·1 |
| 1884 | 1,550 | 927 | 17·5 | 10·5 |
| 1885 | 1,540 | 785 | 16·5 | 8·4 |
| 1886 | 1,594 | 957 | 16·2 | 9·7 |

Convictions of persons committed.

It will be seen that the number of convictions averaged not more than 63·2 per cent., while for the past eleven years the proportion convicted or discharged was per hundred persons committed for trial :—

| Year. | Per-centage of committals. | | Year. | Per-centage of committals. | |
|---|---|---|---|---|---|
| | Convicted. | Acquitted or discharged. | | Convicted. | Acquitted or discharged. |
| 1876 | 64·03 | 35·97 | 1882 | 67·19 | 32·81 |
| 1877 | 59·54 | 40·46 | 1883 | 63·81 | 36·19 |
| 1878 | 58·55 | 41·45 | 1884 | 58·77 | 41·23 |
| 1879 | 68·34 | 31·66 | 1885 | 53·52 | 46·48 |
| 1880 | 68·49 | 31·51 | 1886 | 66·04 | 33·96 |
| 1881 | 67·00 | 33·00 | | | |

Causes of apparent high rate of crime.

The convictions in the higher courts of the Colony, taken over a series of years, greatly exceed, both in number and in proportion, those of any other Colony. So marked is this fact that much speculation has been indulged in as to the probable cause of the anomaly. It is admitted that the people of all the colonies are practically derived from the same stock, while their occupations are fairly alike, and a theory has been hazarded that the high rate of crime in New South Wales is due to a blood taint derived from the original bond-population of this Colony. Such theory is manifestly erroneous, as Tasmania, the colony which received proportionately the largest amount of convicts, and whose population has been least diluted by immigration, has the most favourable record since 1876, as will be seen from the following table, which gives the rates of convictions from the year named to the latest available date. Western Australia has been omitted from the comparison, as its sparse population and peculiar situation would warrant the anticipation of a large amount of crime of a kind not found in the older settled colonies.

No. 313.—Convictions after Trial in Australasian Colonies :—

| | Per 10,000 of population. |
|---|---|
| New South Wales | 12·80 |
| Victoria | 4·50 |
| Queensland | 7·80 |
| South Australia | 6·99 |
| Tasmania | 4·44 |
| New Zealand | 5·74 |

Gold-fields attracted criminal population.

Besides this, Victoria stands second lowest on the list, and there is every testimony that the large gold-finds of that colony, in the years succeeding the final cessation of transportation, attracted the worst classes of all these settlements, especially of New South Wales and Tasmania, and it is very improbable that this population returned. There is, however, no evidence that such a population now exists anywhere in these colonies, certainly it does not exist in New South Wales. But, though the gratuitous theory above alluded to may be easily disposed of, the fact remains that the largest proportion of convictions in the higher courts occur in New South Wales.

Criminals come chiefly from floating population.

There has been in New South Wales for many years a large population whose abode in any district is determined by the existence of a demand for unskilled labour, and it is from the ranks of this floating population, that a large proportion of the persons convicted of crime is derived. All the colonies have, to a greater or less extent, this class of population ; but in New South Wales it is numerically the largest. As these people settle down to regular employment in a fixed abode and acquire interests apart from the excitements of an unsettled life, crime will be found to diminish. The neighbouring colony of Victoria may be cited as an example of this truth, where the decrease of convictions has steadily kept pace with the settlement of its population, so that the per-centage of convictions is now reduced to about 4·5 per ten thousand, as compared with 4·8 in 1876, and 10·1 in 1866.

Strict administration of law in N.S.W.

The laws relating to crime are somewhat similar in all these colonies; but the administration of these laws may possibly be more rigorous in New South Wales than in any other colony. This has already been shown to be the case in regard to drunkenness, and offers an additional explanation of the large number of convictions obtained in New South Wales.

Capital punishment.

Executions have been less numerous of late years than formerly, the death penalty being awarded in only a small proportion of cases wherein the death sentence has been pronounced. The number of executions for ten years is given below.

No. 314.—Number of Criminals Executed in each year, from 1876 to 1886:—

| Year. | Number. | Year. | Number. | Year. | Number. |
|---|---|---|---|---|---|
| 1876 | 4 | 1880 | 4 | 1884 | 2 |
| 1877 | 2 | 1881 | 2 | 1885 | 3 |
| 1878 | 1 | 1882 | 3 | 1886 | 2 |
| 1879 | 1 | 1883 | 1 | | |

Gaols accommodation.

There are in the Colony 53 gaols of all kinds, of these 34 are distinguished as police gaols. There is accommodation afforded for 1,414 prisoners in separate cells, and for 3,645 when more than one prisoner sleeps in a cell. On the 31st December, 1886, there were 2,501 prisoners in confinement thus distributed.

No. 315.—Prisoners and Prison Accommodation:—

| | Prisoners. | Accommodation—one prisoner per cell. | Accommodation—more than one prisoner per cell. |
|---|---|---|---|
| Gaols .................. | 2,287 | 1,222 | 2,950 |
| Police gaols ......... | 244 | 192 | 695 |
| Total ......... | 2,501 | 1,414 | 3,645 |

Prisoners in confinement.

The average number of persons in confinement during the year has not been ascertained, but the number in detention at the close of each year is known, and the figures for the last eleven years will be found below. Prisoners have been classified under three heads—those under sentence, those awaiting trial, and debtors. The respective numbers of each of these classes for the period named were.

No. 316.—Prisoners in Confinement at the close of Each Year :—

| Year. | Total persons in confinement. | Male. | Female. | Under sentence. | | | Awaiting trial. | | | Debtors. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Male. | Female. | Total. | Male. | Female. | Total. | |
| 1876 | 1,490 | 1,267 | 223 | 1,154 | 203 | 1,357 | 113 | 20 | 133 | 32 |
| 1877 | 1,521 | 1,293 | 228 | 1,137 | 209 | 1,346 | 156 | 19 | 175 | 43 |
| 1878 | 1,781 | 1,512 | 269 | 1,318 | 251 | 1,569 | 194 | 18 | 212 | 51 |
| 1879 | 1,951 | 1,641 | 310 | 1,465 | 291 | 1,756 | 176 | 19 | 195 | 48 |
| 1880 | 2,121 | 1,759 | 362 | 1,610 | 349 | 1,959 | 149 | 13 | 162 | 47 |
| 1881 | 2,075 | 1,753 | 322 | 1,612 | 309 | 1,921 | 142 | 13 | 155 | 52 |
| 1882 | 1,935 | 1,646 | 289 | 1,497 | 274 | 1,771 | 140 | 15 | 164 | 45 |
| 1883 | 2,168 | 1,826 | 342 | 1,684 | 330 | 2,014 | 142 | 12 | 154 | 23 |
| 1884 | 2,464 | 2,115 | 349 | 1,966 | 337 | 2,303 | 149 | 12 | 161 | 64 |
| 1885 | 2,559 | 2,222 | 337 | 2,084 | 328 | 2,412 | 138 | 9 | 147 | 52 |
| 1886 | 2,501 | 2,119 | 382 | 2,018 | 369 | 2,387 | 101 | 13 | 114 | 62 |

Classification of offences.

The prisoners under sentence may be divided into four classes according to the description of offence for which they were convicted, as in the following table :—

No. 317.—Classification of Offences for which Prisoners were under Sentence at close of Each Year.

| Year. | Felony. | | Petty Larceny. | | Assaults. | | Other Offences. | |
|---|---|---|---|---|---|---|---|---|
| | Male. | Female. | Male. | Female. | Male. | Female. | Male. | Female. |
| 1876 | 708 | 34 | 160 | 21 | 78 | 4 | 208 | 144 |
| 1877 | 798 | 57 | 81 | 16 | 32 | 3 | 226 | 133 |
| 1878 | 855 | 51 | 127 | 22 | 50 | 4 | 286 | 174 |
| 1879 | 911 | 42 | 176 | 29 | 70 | 21 | 308 | 199 |
| 1880 | 950 | 34 | 189 | 31 | 106 | 8 | 365 | 276 |
| 1881 | 825 | 18 | 201 | 15 | 78 | 5 | 508 | 271 |
| 1882 | 844 | 25 | 168 | 18 | 89 | 3 | 396 | 228 |
| 1883 | 802 | 47 | 263 | 26 | 138 | 15 | 481 | 242 |
| 1884 | 949 | 33 | 295 | 29 | 140 | 6 | 582 | 269 |
| 1885 | 1,047 | 33 | 307 | 47 | 162 | 10 | 568 | 238 |
| 1886 | 1,070 | 40 | 296 | 32 | 121 | 11 | 531 | 286 |

Felons under arrest.

The number of felons detained under sentence was larger in 1886 than in any year of the series, and a notable increase has taken place since 1883. This advance does not denote an increase in crime—for, as already shown, serious crime is decreasing in the community—but points rather to longer sentences. The increase in the term served by prisoners is due to the Criminal Law Amendment Act, which came in force on the first day of July, 1883, but sufficient time has not elapsed since the passing of the Act to trace any effect from its operations, beyond the increase in the term which felons are required to serve. The following table shows the average time served by each prisoner sentenced for felony.

**No. 318.—Average Term of Imprisonment served by Prisoners under Sentence for Felony:—**

| Year. | Average sentence. | Year. | Average sentence. |
|---|---|---|---|
| | Years. | | Years. |
| 1876 | 1·48 | 1882 | 1·18 |
| 1877 | 1·43 | 1883 | 1·19 |
| 1878 | 1·64 | 1884 | 1·39 |
| 1879 | 1·46 | 1885 | 1·53 |
| 1880 | 1·31 | 1886 | 1·77 |
| 1881 | 1·08 | | |

prisoners
is.

**As in the case of the arrests, the largest number of prisoners at any age-period are those whose ages range from 20 to 30 years; but, proportionately to the numbers of the population, the ages of middle life, namely, from 30 to 50 years, are most productive of criminals. The following table gives not only the number of offences committed by persons of various ages, but also the actual** number of persons convicted at each age-period. From a combination of these figures, the particulars given in the last column have been obtained, showing the average number of sentences inflicted on persons at various ages.

No. 319.—Ages of Prisoners sentenced to Imprisonment:—

| Ages. | Total Offences. | | | Distinct Offenders. | | | Average number of Convictions to each person. | | |
|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | Total. | M. | F. | Total. | M. | F. | Total. |
| Under 10 | 9 | 11 | 20 | 9 | 11 | 20 | 1·00 | 1·00 | 1·00 |
| 10–20 | 828 | 283 | 1,111 | 752 | 198 | 950 | 1·10 | 1·43 | 1·17 |
| 20–30 | 4,057 | 1,172 | 5,229 | 3,349 | 649 | 3,998 | 1·21 | 1·81 | 1·31 |
| 30–40 | 3,269 | 1,268 | 4,537 | 2,519 | 544 | 3,063 | 1·29 | 2·33 | 1·48 |
| 40–50 | 2,206 | 995 | 3,201 | 1,677 | 402 | 2,079 | 1·31 | 2·47 | 1·54 |
| 50 and upwards | 2,286 | 653 | 2,939 | 1,639 | 309 | 1,948 | 1·39 | 2·11 | 1·51 |

Female convictions larger than male.

The above table presents several remarkable features. The average number of convictions is considerably larger amongst females than amongst males, especially in the ages over 30 years. This will appear more strongly from a subsequent table dealing with prisoners with previous convictions.

That there should have been twenty children under 10 years of age imprisoned is at least anomalous, but it is probable that the practice of sending children to gaol will cease, now that provision is being made for such cases; for under no circumstance is it possible to conceive that a prison is a fit place for children of so tender an age.

Extent of criminal class.

It is impossible to determine the extent of the criminal class in the Colony, or even the number of habitual criminals. The number of prisoners with previous convictions against them has been however ascertained.

No. 320.—Prisoners with Previous Convictions:—

| Year. | Offenders with previous convictions. | | | Offences committed by prisoners with previous convictions. | | | Average number of convictions per prisoner during the year. | | |
|---|---|---|---|---|---|---|---|---|---|
| | M. | F. | Total. | M. | F. | Total. | M. | F. | Total. |
| 1878 | 2,158 | 958 | 3,116 | 2,283 | 3,401 | 5,684 | 1·06 | 3·55 | 1·82 |
| 1879 | 2,058 | 1,033 | 3,091 | 4,225 | 3,406 | 7,631 | 2·05 | 3·29 | 2·47 |
| 1880 | 1,947 | 827 | 2,774 | 4,470 | 3,220 | 7,690 | 2·29 | 3·89 | 2·77 |
| 1881 | 2,151 | 908 | 3,059 | 4,991 | 3,697 | 8,688 | 2·32 | 4·07 | 2·84 |
| 1882 | 2,092 | 876 | 2,968 | 4,454 | 3,140 | 7,594 | 2·13 | 3·58 | 2.56 |
| 1883 | 2,295 | 854 | 3,149 | 4,542 | 3,219 | 7,761 | 1·98 | 3·77 | 2·46 |
| 1884 | 2,740 | 936 | 3,676 | 5,242 | 3,167 | 8,409 | 1·91 | 3·38 | 2·28 |
| 1885 | 2,710 | 998 | 3,708 | 5,425 | 3,223 | 8,648 | 2·00 | 3·23 | 2·33 |
| 1886 | 3,115 | 1,128 | 4,243 | 5,817 | 3,388 | 9,205 | 1·87 | 3·00 | 2·17 |

Habitual offenders.

The previous convictions alluded to above do not merely refer to the year in which a prisoner figures in the return, but include convictions recorded at any previous period. Many prisoners entered as having previous convictions, were sentenced many years before, and had not two convictions in any one year. The averages therefore given in the last column are the minimum. The terms

Habitual offenders more numerous amongst women

for which women are sentenced are much shorter, as their offences are much lighter than those of males. On the other hand there must, from the evidence of the above table, be a constant reappearance of the same faces before the Courts to account for so high an average of re-convictions. The proportion of habitual offenders, if those with previous convictions may be so termed, is remarkable, and will perhaps be better illustrated by the following table than even by the one just given.

No. 321.—Per-centage of Prisoners with Previous Convictions :—

| Year. | Per-centage of prisoners with previous convictions sent to gaol. | Year. | Per-centage of prisoners with previous convictions sent to gaol. |
|---|---|---|---|
| 1878 | 33·94 | 1883 | 29·17 |
| 1879 | 35·53 | 1884 | 29·97 |
| 1880 | 32·02 | 1885 | 29·83 |
| 1881 | 30·08 | 1886 | 35·18 |
| 1882 | 30·85 | | |

Refractory prisoners.

The chief punishment inflicted on refractory prisoners is solitary confinement. Formerly other modes of punishment were equally used, but of late years these have been to a large extent superseded. The number of punishments inflicted are given below.

No. 322.—Punishment of Refractory Prisoners :—

| Year. | Prisoners punished in gaols. | | | Per-centage of total prisoners punished. |
|---|---|---|---|---|
| | Solitary confinement. | Other punishment. | Total. | |
| 1876 | 498 | 453 | 951 | 9·33 |
| 1877 | 501 | 395 | 896 | 8·23 |
| 1878 | 768 | 192 | 960 | 8·17 |
| 1879 | 1,061 | 284 | 1,345 | 10·16 |
| 1880 | 1,210 | 263 | 1,473 | 10·84 |
| 1881 | 1,225 | 332 | 1,557 | 9·85 |
| 1882 | 1,133 | 319 | 1,452 | 10·19 |
| 1883 | 1,249 | 268 | 1,517 | 9·84 |
| 1884 | 1,473 | 436 | 1,909 | 11·23 |
| 1885 | 1,435 | 399 | 1,834 | 10·56 |
| 1886 | 1,420 | 389 | 1,809 | 10·61 |

Deaths in gaols.

The death-rate in gaols is very light, when the neglected state in which many of the prisoners are received is considered, and moreover shows signs of decreasing. No common ground of comparison exists between the death-rate in gaols and that of the general population. In the following table two rates are given, that per thousand of both sexes received into gaol, taking into consideration only the actual number of persons, and the rate per thousand of the average number of prisoners residing in gaol during the year.

No. 323.—Deaths and Death-rate in Gaol :—

| Year. | Deaths. | | | Deaths per 1,000 prisoners. | |
|---|---|---|---|---|---|
| | Male. | Female. | Total. | Received into gaol. | Estimated average resident. |
| 1878 | 39 | 7 | 46 | 5·01 | 25·83 |
| 1879 | 36 | 7 | 43 | 4·94 | 22·04 |
| 1880 | 37 | ... | 37 | 4·27 | 17·44 |
| 1881 | 53 | 7 | 60 | 5·90 | 28·91 |
| 1882 | 40 | 6 | 46 | 4·78 | 23·77 |
| 1883 | 30 | 5 | 35 | 3·24 | 16·14 |
| 1884 | 35 | 4 | 39 | 3·18 | 15·82 |
| 1885 | 39 | 11 | 50 | 4·02 | 19·54 |
| 1886 | 38 | 10 | 48 | 3·98 | 19·19 |

## *THE SUPREME COURT.*

Judges of the Supreme Court

The chief legal tribunal of the Colony is the Supreme Court, which is at present composed of six permanent judges and a temporary judge—that is one Chief Justice and six puisne judges. Three of the judges sit separately to try civil actions in the months of February, May, August, and November in each year. Civil actions are usually tried by a jury of four persons, but either party to the suit, on cause shown, may apply to a judge in chambers to have the cause tried by a jury of twelve. Twice the number of jurors required to sit on the case are chosen by ballot, from a panel summoned by the sheriff, and from that number each of the parties strikes out a fourth, the remainder thus selected by both parties forming the jury who are to try the case. This jury are constituted the judges of the facts of the case only, being bound to accept the dicta of the judge on all points of law. From the court thus constituted an appeal lies to what is called the "Full Court," sitting *in Banco*, which is generally composed of at least three of the judges. The Chief Justice, or in his absence the senior puisne judge, presides over the Full Court, which gives its decision by majority. The circumstances under which new trials are granted are the following:—Where the judge has erroneously admitted or rejected material evidence; where he has wrongly directed the jury on a point of law; where the verdict of the jury is clearly against evidence; or where, for some other cause, there has evidently been a miscarriage of justice.

Appeal to Privy Council permitted.

Provision is made for appeals to the Privy Council, but any suitor wishing to carry his cause before the supreme tribunal of the Empire must first obtain leave so to do from the Supreme Court. The amount in dispute must be at least £500, or affect the construction of a New South Wales statute. In other cases application for leave to appeal must be made to the Privy Council itself.

The Chief Justice also has an extensive jurisdiction as Commissary of the Vice Admiralty Court, in which all cases arising out of collisions, &c., in Australian waters, are determined.

Equity jurisdiction.

One of the puisne judges also acts as judge of the Equity Court, from whose decrees an appeal lies to the Full Court, and thence to the Privy Council.

Another puisne judge is judge of the Divorce Court, in which cases are usually tried without a jury, an appeal lying to the Supreme Court.

Ecclesiastical jurisdiction.

The equity judge also represents the ecclesiastical jurisdiction of the Supreme Court, and hears and decides all applications for the probate of wills, and for letters of administration, and also determines suits as to the validity, &c., of wills. Motions for rehearing cases in this court, before the Supreme Court or Privy Council are sometimes made. Barristers only have the right of audience before the Supreme Court.

The following table gives the number of civil suits decided in the Supreme Court in each year from 1876 to 1886, inclusive.

No. 324.—Supreme Court Civil Suits:—

| Year. | No. of writs issued. | No. of causes entered for trial. | Defended. | Undefended or settled. | Total amount for which judgment signed. |
|---|---|---|---|---|---|
| | | | | | £ s. d. |
| 1876 | 2,530 | 293 | 208 | 85 | 106,257 12 6 |
| 1877 | 2,887 | 286 | 188 | 98 | 127,204 14 10¾ |
| 1878 | 3,280 | 319 | 199 | 120 | 278,126 10 5 |
| 1879 | 3,806 | 292 | 179 | 113 | 436,355 17 6 |
| 1880 | 3,312 | 350 | 202 | 148 | 202,253 15 2¼ |
| 1881 | 2,845 | 331 | 173 | 158 | ............ .. |
| 1882 | 3,161 | 414 | 250 | 164 | 169,520 12 0 |
| 1883 | 3,830 | 377 | 225 | 152 | .............. |
| 1884 | 4,547 | 493 | 271 | 222 | 370,647 13 0 |
| 1885 | 4,079 | 494 | 255 | 239 | 399,951 15 6 |
| 1886 | 5,649 | 503 | 255 | 248 | 410,274 14 5 |

Probates and letters of administration.

The number of probates and letters of administration in connection with wills for each year of the period 1876–86 is given below.

No. 325.—Probates and Administrations:—

| Year. | No. of probates and administrations—Will annexed. | Amount sworn to. | No. of letters of administration. | Amount sworn to. | Total. |
|---|---|---|---|---|---|
| | | £ | | £ | £ |
| 1876 | 511 | 1,677,972 | 415 | 223,189 | 1,901,161 |
| 1877 | 530 | 1,336,599 | 471 | 291,391 | 1,627,990 |
| 1878 | 573 | 1,735,064 | 514 | 281,367 | 2,016,431 |
| 1879 | 579 | 2,116,906 | 472 | 269,992 | 2,386,898 |
| 1880 | 667 | 1,323,823 | 506 | 210,816 | 1,534,639 |
| 1881 | 671 | 2,011,305 | 526 | 307,818 | 2,319,123 |
| 1882 | 810 | 3,586,554 | 589 | 581,528 | 4,168,082 |
| 1883 | 862 | 3,528,602 | 613 | 588,029 | 4,116,631 |
| 1884 | 933 | 3,642,709 | 648 | 605,543 | 4,248,252 |
| 1885 | 961 | 3,721,805 | 659 | 601,542 | 4,323,347 |
| 1886 | 1,026 | 4,726,918 | 706 | 768,628 | 5,495,546 |

### *CRIMINAL JURISDICTION.*

Trial by jury.

Each judge of the Supreme Court presides in turn over the Central Criminal Court of Gaol Delivery held at Darlinghurst. All prisoners are tried by a jury of twelve, chosen by ballot from the panel provided by the sheriff. Every person charged with a felony has a peremptory right of challenge extending to twenty jurors, and he can also further exercise his right of challenge on cause shown and allowed. No prisoner is allowed to give evidence, but he has a right to the services of counsel in conducting his defence. The verdict of the jury must be unanimous, for even if eleven jurors were agreed their verdict could not be accepted. If the jury cannot agree they may be locked up until they either give a unanimous verdict, or are discharged by the Court. If no verdict is returned, the prisoner is liable to be tried over again by another jury.

Gaol deliveries.

In addition to the supreme, civil, and criminal sittings of the Court held in Sydney, each judge goes on circuit once in each half-year, and holds Courts of Gaol Delivery and for hearing civil cases at certain circuit towns, viz. :—In the north—Maitland, Tamworth, Armidale, and Grafton; in the west—Mudgee, Bathurst, and Dubbo; in the south—Goulburn, Yass, Wagga Wagga, Albury, and Deniliquin.

### *DISTRICT COURTS.*

For the trial of civil causes where the value in dispute does not exceed £200, District Courts have been established. They are presided over by judges specially appointed for the purpose, who also perform the duties of Chairmen of Quarter Sessions for the trial of all prisoners except those charged with capital crimes. District Courts sit continuously in the metropolis, and are also held twice a year in all the considerable country towns. The judge is not ordinarily assisted by a jury, but in cases where the amount in dispute exceeds £20, either of the parties may, by giving notice to the Registrar of the Court, have a jury summoned. On questions of law an appeal lies to the Supreme Court.

Questions reserved for Supreme Court.

On the trial of prisoners at Quarter Sessions, the Chairman, at the request of the prisoner's counsel, must reserve questions of law for the consideration of the Supreme Court, or he may so act *motu proprio.*

Suits in District Courts.

The number of suits in the District Courts of the Colony, and the mode in which they were tried, whether with or without jury, &c., is given in the following table for the year 1886:—

No. 326.—Suits in District Courts, 1886.

| District. | Number of suits. | | Settled. | | Number of cases. | | | Result of the trials. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Tried. | | | |
| | Commenced. | Total amount sued for. | Without hearing. | By arbitration. | Tried. | By jury. | Without jury. | For plaintiffs. | For defendants |
| | | £ | | | | | | | |
| Metropolitan and Hunter ......... | 8,543 | 199,686 | 4,625 | 3 | 3,467 | 30 | 3,437 | 3,188 | 279 |
| Southern ......... | 1,394 | 45,384 | 559 | 8 | 776 | 39 | 737 | 708 | 68 |
| South-western ... | 789 | 28,449 | 403 | 1 | 342 | 8 | 334 | 295 | 47 |
| Western ......... | 638 | 21,343 | 307 | 1 | 286 | 18 | 268 | 233 | 53 |
| Northern ......... | 1,378 | 41,140 | 562 | 1 | 776 | 6 | 770 | 697 | 79 |
| North-western ... | 428 | 18,821 | 197 | ... | 204 | 8 | 196 | 176 | 28 |
| Total ...... | 13,170 | 357,863 | 6,653 | 14 | 5,851 | 109 | 5,742 | 5,297 | 554 |

## *INSOLVENCY COURT.*

Insolvent debtors.

The statutes relating to insolvent debtors are administered by the Chief Commissioner in Insolvency, who presides over the insolvency jurisdiction of the Supreme Court. When any person becomes embarrassed and is unable to pay his debts, the law allows him to sequestrate his estate for the benefit of his creditors, or these latter may, under certain specified circumstances, apply for a compulsory sequestration. An officer of the Court termed an official assignee is appointed by the Chief Commissioner to manage each sequestrated estate. His duties are to realise the

Sequestration of estates.

insolvent's assets and pay *pro rata* the debts proved, subject to the approval of the Chief Commissioner. After each insolvent's case has been investigated and all dividends have been paid, the Chief Commissioner may, at his discretion, grant a certificate relieving the insolvent from all future liability. This certificate is granted in all cases where no blame has been found to attach to the applicant; but where the insolvency has been brought about by recklessness or fraud it is often withheld for some time, and, in very bad cases, refused entirely. An appeal lies from the Chief Commissioner's decision to the primary judge, and, in some cases, to the Full Court.

The number of insolvents, and the amounts for which they failed, and other particulars will be found under the part of this volume relating to finance.

# PART XVIII.

## Constitution and Government.

THE record of New South Wales as a Crown Colony belongs more to past history than to current statistics. It is therefore not proposed, in the following sketch, to deal with matters prior to the establishment of Responsible Government, though a brief narrative of the early history and settlement of the country will be found in the opening pages of this volume.

Present government began in 1855.

The present form of government was inaugurated little more than thirty years ago, the "Act to confer a Constitution on New South Wales, and to grant a Civil List to Her Majesty," having received the Royal assent on the 16th July, 1855. This important statute was proclaimed in Sydney on the 24th of November of the same year, and at once came into operation, sweeping away entirely the former system, and constituting an elective representative Chamber, thus making the Queen's subjects in the Colony, by the granting of equal privileges, the equals of their countrymen in other parts of the Empire. The ties which bound the Colony to the Mother Country were in no way loosened, for the Constitution Act simply conceded to the people of New South Wales the same rights which prevailed in the United Kingdom, namely, of taxing themselves, and of being governed by Ministers responsible to a Parliament elected by the people. The authority vested in the Sovereign remains the same as before, though the mode of its exercise is widely different. The Sovereign, previously to Responsible Government, exercised almost despotic power, through the Governor. This official, in times past, united in himself the executive and legislative functions, and personal liberty and independence were to no small degree in his power. With the establishment of Responsible Government, this state of things ceased, and the greatest measure of individual liberty is now found compatible with the full protection of public rights.

The readiness with which the people of the Colony adapted themselves to the forms and practice of their new government was not a little remarkable, and fully justified their assumption of its privileges.

Laws enacted in Queen's name.

All laws are still enacted in the name of the Queen, "by and with the advice of the Legislative Council and Legislative Assembly," the Governor, as the Royal Deputy, giving the consent of the Sovereign immediately to Acts of Parliament, or reserving them for the consideration of the Sovereign in person, if he thinks fit. To afford a clearer conspectus of the Constitution it will be well to consider the several portions which go to form the governing and legislative body, under distinct heads.

## *THE GOVERNOR.*

How appointed.

Previously to the year 1879, the Governor of the Colony was appointed by Letters Patent under the Great Seal; but in that year the practice was discontinued by the advice of Sir Alfred Stephen, given during the tenure of office of Sir Hercules Robinson. The change was first carried out in the appointment of Lord Augustus Loftus. The office of Governor is now constituted by permanent Letters Patent and by a standing Commission, instead of as formerly by letters issued *pro hac vice* only. The Governor receives his appointment at present by Commission under the Royal sign manual and signet, which recites the Letters Patent of the 29th April, 1879, as well as the instructions issued (under sign manual and signet) in further declaration of the Queen's "will and pleasure." The original Letters Patent, thus recited and enforced, declare that the Governor is directed and empowered "to do and execute all things that belong to his office according to the tenor of the Letters Patent, and of such Commission as may be issued to him under our sign manual and signet, and according to such instructions as may from time to time be given to him under our sign manual and signet, or by our order in our Privy Council, or by us through one of our Principal Secretaries of State, and to such laws as are now or shall hereafter be in force in the Colony." By a custom which has now long prevailed, no Governor is allowed to retain his office longer than six years.

Should the Governor die, or become incapable during his tenure of office, or be removed before the arrival of his successor, or should he have occasion to leave the Colony for any considerable period, the Government is to be administered (1) by the Lieutenant-Governor, or, if there be no Lieutenant-Governor (2) by the Administrator who is to be appointed according to the provisions of the Letters Patent and instructions.

Lieutenant-Governor.

The present Lieutenant-Governor is Sir Alfred Stephen, who was appointed by a Commission dated 30th April, 1879; and the Administrator was appointed by a Commission of the same date directed to the President of the Legislative Council for the time being.

The Lieutenant-Governor, or, in his absence, the Administrator, is empowered by his Commission to execute the office of Governor during any temporary absence of the Governor from the Colony; but the Governor may not be absent except in accordance with the terms of his instructions. He may not leave the Colony without the Queen's special leave, except on a visit to the Governor of a neighbouring colony, for a period exceeding one month at a time, nor exceeding in the aggregate one month for every year of his service; but, on the other hand, the Governor may leave the Colony for any period not exceeding one month without its being reckoned as a departure, if he shall have previously informed the Executive Council in writing of his intention, and appointed a deputy to act for him till his return. This deputy must, in the first instance, be the Lieutenant-Governor; but if, from any cause, his services are not available, the Governor can appoint whom he pleases as his deputy.

The Governor's functions, according to the Letters Patent, Commission and Instructions may be recapitulated as follows :—

1. The Governor is the custodian of the Great Seal, under which all Crown grants, &c., must pass.

Governor appoints Executive.

2. The Governor has the appointment of his own Council—the Executive. He is also to summon that Council, and is, ordinarily its President; but in his absence some other member may be nominated to preside. It is usual, however, to appoint some member of the Ministry permanent Vice-President, who of course presides in the absence of the Governor.

3. The Governor is also the fountain of honour within the Colony, as to him belongs the power to appoint, in the Queen's name, all Judges, Justices of the Peace, Commissioners, and other "necessary officers and Ministers"; and he may remove, by virtue of his powers as Viceroy, from the exercise of his office any official so appointed.

Prerogative of mercy.

4. The Governor is also the depositary of the prerogative of mercy within the Colony by having it in his power to pardon, either absolutely or conditionally, any offender convicted in New South Wales. He can also remit fines, penalties, and forfeitures due to the Crown, but he cannot pardon or remit on the condition of the offender voluntarily leaving the Colony, unless his offence has been a political one only. In all capital cases the Governor is required by his instructions to obtain a report in writing from the Judge who tried the prisoner, which is to be considered at a meeting of the Executive Council, and the Judge himself may also be examined before the Council, but his recommendations need not necessarily be adopted. The Governor, however, is not empowered to reprieve any capitally sentenced prisoner, or pardon him absolutely "unless it shall appear to him expedient so to do upon receiving the advice of the Executive Council, but in all such cases he is to decide either to extend or to withhold the pardon or reprieve according to his own deliberate judgment, whether the members of

the Executive Council concur therein or otherwise." If the Governor decides to act contrary to the advice of the Executive he must make a minute in the proceedings, stating his reasons for so acting, *in extenso*.

5. The Governor also is vested with the authority of the Crown, enabling him to nominate the members of the Upper House of the Legislature, and to summon, prorogue to a future day, or dissolve "any legislative body" existing in the Colony.

Governor acts by advice of Executive.

His instructions, however, provide that in the exercise of the above powers, the Governor is to act by the advice of the Executive Council in all cases, except those whose nature is such that in his opinion the public service "would sustain material prejudice" by so doing, or in matters too trivial to submit to the Council, or "too urgent to admit of their advice being given;" but in all such urgent cases he must communicate to the Council as soon as practicable the measures taken by him, and his reasons for acting. It is expressly provided, however, that the Governor may, if he think fit, disregard the advice of the Executive and act in direct opposition to the declared will of his advisers, but in that case he is required to make a full report of the whole circumstance for the information of the Secretary of State for the Colonies.

Governor Viceroy as regards Royal assent.

The Governor acts as Viceroy as regards giving the Royal assent or vetoing Acts passed by the Legislature, or reserving Bills for the special consideration of the Sovereign. The instructions deal at large with this matter, but it is usual in practice to be guided to a large extent by the advice of the law officers of the Crown. There are eight different classes of Bills, however, to which the Governor is bound to refuse the Royal assent. They are:—

(1.) Divorce Bills (that is, private bills divorcing particular persons).

(2.) Bills making any kind of grant, gratuity or donation to the Governor.

(3.) Bills affecting the currency.

(4.) Bills imposing differential duties, which are not in accordance with the "Australian Colonies Duties Act, 1873."

(5.) Bills apparently contrary to Imperial treaty obligations.

(6.) Bills interfering with the discipline or control of Her Majesty's land or sea forces employed in the Colony.

(7.) Bills of great importance, or extraordinary in their nature, whereby the Royal prerogative, or the rights and property of Her Majesty's subjects residing beyond the Colony, or the trade and shipping of the United Kingdom and its dependencies may be prejudiced.

(8.) Bills containing provisions to which the Royal assent has already been refused, or which have been once disallowed, unless they contain a clause suspending their operation until the Queen's pleasure has been signified, or unless the Governor is satisfied that there is urgent necessity for bringing any such Bill into immediate operation, in which case he is empowered to assent to the Bill on behalf of the Queen, if it is not repugnant to the law of England, or inconsistent with Imperial treaty obligations; and in every such case he is required to transmit the Bill to Her Majesty, together with his reasons for assenting to it.

Acts regulating Royal assent.

The following Acts of Parliament regulate the action of the Governor in assenting to Bills on behalf of the Queen, or reserving them for the consideration of the Sovereign:—5 and 6 Vic., secs. 31–32, cap. 76; 7 and 8 Vic., sec. 7, cap. 74; and 13 and 14 Vic., cap. 59, secs., 13, 32 and 33. The effect of these enactments is to deprive any reserved Bill of all force and legality until the Queen's assent thereto has been formally communicated to the Governor; and power is given to Her Majesty to veto any Bill to which the Governor has assented on her behalf within two years after the receipt of such Bill by the Secretary of State for the Colonies, in which case the Bill is to be declared null and void by message of the Governor, and proclamation. Reserved Bills are to be laid before Her Majesty in Council, and the Queen may allow them or not within a period of two years from the day on which they were reserved by the Governor.

By the Act 7 Vic., No. 16, all Acts of Parliament which become law are required to be registered by the Registrar General within ten days of their so becoming law.

The above is a summary of the powers and duties of the Governor, as defined by his instructions and the Letters Patent, but additional duties have been imposed upon him by the Constitution and Electoral Acts. In accordance with these enactments, he must summon the Legislative Assembly, appoint the President of the Legislative Council; prorogue or dissolve Parliament; appoint his ministers *proprio motu*; also appoint, with the advice of the Executive, all public officers whose appointment is not vested in heads of departments; issue all warrants for the payment of money; issue the writs for general elections, and, in the absence of the Speaker, issue writs to fill vacancies occurring in the Assembly. He also appoints all returning-officers, and issues the writs for additional members provided for by the expansive clauses of the Electoral Act.

**Summoning of Parliament, &c**

In summoning, proroguing, or dissolving Parliament, the Governor usually acts according to the advice tendered him by the Cabinet, but he is in no way bound to do so; and, as a matter of fact, has sometimes declined to be guided by his Ministers. This, however, has never happened except in respect to granting a dissolution. As to summoning or proroguing, a difference of opinion is hardly likely to arise. The relations established between the Ministry and the representatives of the people are in accordance with the time-honoured precedents prevailing in the Mother Country, which may be thus defined. The Cabinet must be chosen from—"(1) Members of the Legislature; (2) Holding the same political views, and chosen from the party possessing a majority in the House of Commons; (3) Carrying out a concerted policy; (4) Under a common responsibility, to be signified by a collective resignation in the event of Parliamentary censure; and (5) Acknowledging a common subordination to one Chief Minister."

Circumstances under which a Government must resign.

The Imperial rule as to the circumstances under which a Government is bound to resign, is as follows:—Censure, involving loss of office, rests entirely with the Lower House, or popular branch of the Legislature. Hence directly a Ministry fails to command a majority of the House of Commons, it must give place to others. Want of confidence in a Cabinet may be shown in three ways; first, by a direct vote of censure, or a specific declaration of want of confidence; secondly, by a vote disapproving of some act of the Government; or thirdly, by the rejection of some important measure introduced by the Ministry. In any of these cases Ministers must either resign or appeal to the country, if they can get the Sovereign to sanction a new election.

These rules have been virtually adopted in New South Wales and the undoubted right of the Governor, as the depositary of the Royal prerogative, to refuse to grant a dissolution, if he thinks fit, has been more than once exercised. In March, 1877, Sir Hercules Robinson refused to grant a dissolution to Sir John Robertson, and in September of the same year he also refused to enable Sir Henry Parkes to go to the country. The reason alleged in each case was that the Assembly refused to make provision for the expenditure of the year. It will thus be seen that a grave responsibility is thrown upon the Governor in the exercise of the undoubted right of granting or refusing a dissolution of Parliament, and in the cases mentioned it can hardly be doubted that Sir Hercules Robinson acted within his powers. The Viceroy is the conservator of the rights and interests of the whole population, and it must be evident that grave evils would ensue should a dissolution take place before supplies had been granted.

Prerogative of mercy.

The exercise of the prerogative of mercy is such an important function of the Governor, and he is liable on some occasions to have strong pressure brought upon him in connection with it, that it will be well to quote at length a despatch of Lord Carnarvon, explaining the instructions on this point. Under date 4th May, 1875, he wrote:—

"It should therefore be understood that no capital sentence may be either carried out, commuted, or remitted, without a consideration of the case by the Governor and his Ministers assembled in Executive Council. A minor sentence may be commuted or remitted by the Governor, after he has duly considered the advice, either of his Ministers collectively in Executive Council, or of the Ministers more immediately responsible for matters connected with the administration of justice; and whether such advice is or is not tendered in Executive Council, it would seem desirable that, whether also given orally or not, it should be given in writing."

Governor as Commander-in-Chief of military forces.

One exception to the rule that every exercise by the Governor of the Royal prerogative is subject, practically, to the control of the Legislature occurs in connection with the exercise of his office as Commander-in-Chief of the land and sea forces. The Governor's powers in this regard are defined and regulated by the Military and Naval Forces Regulation Act of 1871, which, after providing for the raising and maintenance of a standing force, goes on to vest the supreme command in the "Governor," which title, in the interpretation clause, is defined to mean "the Governor with the advice of the Executive Council," *unless the context shall otherwise indicate*. Full powers with relation to the Volunteer Force are also bestowed on the Governor by the Volunteer Regulation Act of 1867, but in this, as in the former statute, "Governor" only means "the Governor with the advice of the Executive Council," *if this meaning is not inconsistent with the context or subject matter*. It will at once be seen that these are both important limitations, as in certain imaginable contingencies, the Governor is left free to act on his own responsibility. This places the Governor almost in the position of the Commander-in-Chief in England (when such an officer exists, which is very seldom, the control of the army usually being vested in Generals commanding-in-chief); that is, he has at times the absolute disposal of the armed force of the Colony. This power is peculiar to New South Wales, as in other British Colonies, the Governor possesses no more power over the military than he does over any civil department of the service.

The position of the Governor as Captain-General does not, however, give him power to take the direct command of Imperial troops, should any such be stationed in the Colony.

Martial Law.

As regards the far more important power of the Governor to proclaim martial law, different opinions are held. But there is no doubt, as the power has not been conferred by any statute in force in the Colony, that, if it exists, it must be a matter of prerogative. The necessity for proclaiming martial law has happily never occurred since the advent of Responsible Government.

## *THE EXECUTIVE.*

The Cabinet.

The Executive Council is composed of the ten Ministers, namely: The Colonial Secretary, the Treasurer, the Attorney General, the Secretary for Lands, the Secretary for Works, the Minister of Justice, the Minister of Public Instruction, the Secretary for Mines, and the Postmaster General, with sometimes a Vice-President of the Executive Council, who is without a portfolio. These form the Cabinet, and, of course, are responsible to Parliament. The Ministry, as the advisers of the Governor, must also retain his confidence, but practically, this is seldom likely to be withdrawn, so long as they can command a working majority in the Assembly. The Governor may dissolve Parliament although the Ministry have not sustained a defeat, and in this case the continued existence of any Government would depend directly on the vote of the constituencies, but such a contingency can happen but seldom.

Ministers not usually appointed from Upper House.

It is rare for more than one Minister to be selected from the Upper House, and it will thus be seen that the principle of the responsibility of the members of the Government to Parliament is fully carried out. For every act of the Governor as Viceroy, some Minister is responsible to Parliament, and even in matters of Imperial interest, where the final onus rests on the Governor, he himself is responsible to the Imperial Government, whose members are under the control of the House of Commons, so that no loophole is left for the exercise of any arbitrary act. The Crown, except in two instances (appeals to the Privy Council and the bestowal of titles), acts towards the Executive through its representative the Governor, and so long ago as the inception of Responsible Government, Earl Grey declared, in an official despatch, that he should make "a judicious use of the influence, rather than of the authority, of his office," which wise maxim has usually been followed. But in extreme cases, such as when his sanction is requested to anything illegal, the Governor is bound, without question, to keep the law, though he may thereby be brought into hostile relations with the Cabinet. Sir Michael Hicks-Beach, in a communication to the Governor-General of Canada in 1879, clearly laid down the doctrine that the Governor of any British Colony "has an unquestionable constitutional right to dismiss his Ministers, if from any cause he feels it incumbent on him to do so." This does not militate against the doctrine of responsibility, for if the Ministry appointed by the Governor do not possess the confidence of Parliament, they cannot hold office, and hence the Governor will be forced to give way, or else persevere till he can select a Ministry which the Assembly will accept. The final control will thus be, as in every other case, with the representatives of the people. In matters of routine, the Governor will necessarily act on the advice of his Ministers, and in most cases relating to the internal economy of the departments he will adopt even the individual recommendations of the Ministers by whom they are severally controlled.

Dismissal of Ministers.

As regards matters of purely Imperial interest, the Governor is responsible to the Home authorities for their due conservation. If, in consequence of his action on any such matter, he is involved in a dispute with his Ministers, he is bound to refer them to the Sovereign, should his action have been endorsed by the Colonial Office. If his conduct is not approved of at Home he would most likely be recalled. It follows from this, that in no case can the Governor be held to be responsible directly to Parliament for his conduct. His Ministers are responsible, but personally he has only to render an account to the Crown itself, that is, to the Imperial Parliament.

Executive must be summoned by Governor.

The Executive Council cannot discharge any function unless duly summoned by the Governor, and at least two members, besides the Governor or presiding member, are present to form a quorum. Formal minutes are, of course, kept of all proceedings.

The Executive Council, as at present constituted, is as follows:—

| | |
|---|---|
| Premier and Colonial Secretary | The Hon. Sir Henry Parkes, K.C.M.G. |
| Colonial Treasurer | The Hon. John Fitzgerald Burns. |
| Attorney General | The Hon. Bernhard Ringrose Wise. |
| Secretary for Lands | The Hon. Thomas Garrett. |
| Secretary for Public Works | The Hon. John Sutherland. |
| Minister of Public Instruction | The Hon. James Inglis. |
| Minister of Justice | The Hon. William Clarke. |
| Postmaster General | The Hon. Charles James Roberts, C.M.G. |
| Secretary for Mines | The Hon. Francis Abigail. |
| Vice-President of the Executive Council and Representative of the Government in the Legislative Council (without portfolio) | The Hon. Julian Emmanuel Salomons, Q.C. |

Since the introduction of Responsible Government, there have been twenty-four Ministries, the average tenure of office being one year and four months.

### *THE PARLIAMENT.*

Relative powers of the two Houses undefined.

It seems a singular omission in the Constitution Act that no definition is given of the relative powers of the Legislative Council and Legislative Assembly. Such is the fact, but no inconvenience has arisen thereby, since by common consent it has been agreed that the precedents regulating the proceedings and relations, *inter se*, of the two Houses of the Imperial Parliament shall be followed, as far as applicable, in New South Wales. The Constitution Act provides that all money bills shall be introduced in the Lower House only. The important rule of the House of Commons, affirmed two hundred years ago and constantly enforced ever since, that "all aids and supplies, and aids to Her Majesty in Parliament are the sole gift of the Commons, and it is the undoubted and sole right of the Commons to direct, limit, and appoint in such bills, the ends, purposes, considerations, conditions, limitations, and qualifications of such grants, which ought not to be changed or altered by the House of Lords," is also held to be in force as regards the Parliament of this Colony, and has always been recognized and acted upon.

Parliament cannot punish for contempt.

The two Houses, however, do not possess the most important of the privileges of the Imperial Parliament, namely the right of punishing for contempt, although the Legislative Assembly has, on one occasion, punished one of its members, for conduct assumed to be dishonorable beyond its precincts, by expelling him. As regards disorderly conduct within the walls of the Chamber, it has been held by the Supreme Court and affirmed by the Privy Council, that the Assembly only possesses the power of suspending a member for disorderly conduct for the period of the sitting at which such conduct took place. A member may be also removed from the House by order of the Speaker if he persists in obstruction or contemns the Standing Orders; but fortunately this course has very seldom been rendered necessary.

Witnesses may be summoned.

Witnesses may be summoned to give evidence before either House, or before committees of the Council or Assembly, the necessary powers for compelling their attendance having been conferred by an Act passed in 1881. Any person disobeying a summons may be arrested on a judge's warrant, and the maximum penalty for refusing to give evidence when brought up is imprisonment for one calendar month.

No limit to numbers of Council.

As regards the maximum number of members of the Legislative Council, no limit is assigned by the Constitution Act, although the minimum number is fixed at twenty-one. It will be seen that this gives power to a Governor to quash any possible obstruction on the part of the Council to the will of the Government, and the Lower House by "swamping" the Council. Such a proceeding, however, can hardly be held to be allowable, except under extreme circumstances. As a matter of fact, an attempt to "swamp" the Council was made during one of the premierships of the late Sir Charles Cowper, but public opinion condemned his action most strongly, although the somewhat peculiar circumstances of the case were thought at the time to justify the Governor's action. The Home authorities severely rebuked the Governor (Sir John Young) for the course he had taken, and since then, "swamping" the Council has never been seriously entertained, nor is there much chance that it will ever again be attempted. The principle in fact has been affirmed, on the basis of an understanding entered into between Sir John Young and the leading statesmen of the day (of both sides of the House), that the members of the Legislative Council should be limited to a convenient number, and that no nominations should ever be made merely for the purpose of strengthening the party which happens to be in power. A dead-lock between the two Houses is provided against by the universal feeling that the Assembly represents the will of the people, and in such case the Council would certainly have to give way to the deliberate will of the people's representatives. The Council is intended as a check to hasty legislation; and it doubtless acts as a useful "brake" to violent party feeling.

## *THE LEGISLATIVE COUNCIL.*

**Constitution of the Legislative Council.**

As before stated, the members of the Upper House are nominated by the Governor, the minimum number composing the House being fixed at twenty-one. No limit as to numbers is fixed by the Constitution Act, but in accordance with the arrangement already described, the number is practically kept down by the exclusion of all purely political appointments. As the number of members of the Assembly has been greatly increased in pursuance of the "expansion" clauses of the Act, the present number of members composing the Council (fifty-eight) will not be considered an unfair proportion, as the increase is in about the same ratio as that of the Assembly. The members must be of full age, and either natural-born or duly naturalized subjects of the empire. Four-fifths of the members must be persons not holding any paid office under the Crown, but this is not held to include officers "in Her Majesty's sea and land forces on full or half-pay, or retired officers on pensions." Though the appointment is for life, a member may resign his seat, and he also forfeits it by absence from two consecutive sessions without leave, by becoming naturalized in a foreign State, by becoming insolvent, by becoming a public contractor, or defaulter, by being attainted of treason, or being convicted of felony, or any infamous crime. The Governor appoints and removes, if considered necessary, the President, who may speak in debate, but can only give a casting vote. An attendance of one-third of the members on the roll is necessary to constitute a quorum. The Council must hold a sitting at least once in every year, and no greater interval than twelve months must elapse between session and session. The proceedings are regulated by standing orders, which are, in the main, similar to those of the Assembly, the latter being framed on the model of the rules obtaining in the House of Commons. No member may sit or vote till he has taken the oath of allegiance, or the affirmation prescribed in lieu of that oath.

**Members may resign.**

## *THE LEGISLATIVE ASSEMBLY.*

The Lower House of Parliament is elected by manhood suffrage, the number of electorates being at present seventy-two, returning 124 members. The qualification of electors is derived either from actual residence in an electorate or ownership of a freehold or leasehold therein. The following are the rules applying to each of the two cases:—

Qualification of electors.

1. Any person claiming a right to have his name on the electoral roll in respect of residence, must prove that at the time of the collection of the roll he resided in the electorate in question, and had done so for six months previously.

2. Any person who claims in respect of property must show that at the time the electoral list was made up, and during the preceding six months:—

(*a*). He is and has been holder of a freehold or leasehold estate of the clear value of £100, or

(*b*). He is and has been in the receipt of rents and profits of the annual value of £10, arising from freehold or leasehold property, or

(*c*). Occupies and has occupied a house, warehouse, office, shop, room, or building, either with or without land attached, of the annual value of £10, or

(*d*). Holds and has held a Crown lease or license for pastoral purposes within the electoral district.

The six months occupation is not required to be of the same premises, provided he has occupied continuously several sets of premises of the required value he is entitled to vote.

A man must be possessed of one or other of the above qualifications to entitle him to vote in any electorate; but he can only have one vote in each electorate, no matter how many qualifications he has in that electorate. If he is qualified in several electorates, he is entitled to have his name on the electoral roll in each.

A person is disabled from voting by reason of the existence of any of the following disqualifications at the time of making out the electoral roll :—

1. Being of unsound mind.
2. Being in receipt of eleemosynary aid.
3. Having been convicted of treason, felony, or other infamous crime, unless he has either received a free or conditional pardon, or has served his sentence.
4. Being in the military or naval service on full pay. Membership in a volunteer or militia corps does not disqualify.
5. Being a police magistrate or member of the police force (including the Inspector General).

"Expansion" clauses of Electoral Act.

The "expansion clauses" of the Act, as they are called, provide that when an electorate which has previously returned only one member has 3,000 names on its electoral roll, or when one which returns two members is possessed of 5,000 voters, or one which returns three has reached 8,000, such electorate, in each case, is entitled to return an additional member ; but the Governor must first notify the fact by proclamation in the *Gazette*.

Any natural born, or duly naturalized subject of Her Majesty is capable of being elected a member of the Assembly, subject to the same disqualifications as for voters, with the following additional ones :—

1. He must not be a member of the Legislative Council.
2. He must not hold any office of profit under the Crown, either for a term of years or during pleasure.
3. He must not be in any way interested in any contract for the public service.

Offices of profit.

By the "Constitution Act Amendment Act of 1884" the disqualification of persons holding office of profit was declared not to apply to the Colonial Secretary or other member of the

Ministry. The third disqualification also does not apply to any contract made by a company consisting of more than twenty persons.

If any disqualified person should be elected, the election is voided by the House, and should such person presume to sit or vote, he is liable to a fine of £500.

Members must take oath of allegiance.

Before taking his seat, each member must take the oath of allegiance in the prescribed form, or make an affirmation in lieu of it. A member may resign his seat at any time, and he is held to have vacated it under each or any of the following conditions:—Absence during a whole session without leave, naturalization in a foreign country, insolvency, being a defaulter, or convicted of treason, felony, or any other infamous crime.

The Act 37 Vic., No. 7, provides that no Assembly can prolong its existence beyond the term of three years. One session, at least, must be held every year, and twelve months must not elapse between any two sessions. On first meeting after a general election, the first business is to elect a Speaker, who has only a casting vote. Twenty of the members (exclusive of the Speaker) constitute a quorum.

Writs for general elections must be made returnable not later than thirty-five clear days after the date of the proclamation dissolving the former Parliament.

Writs for general elections, and also for vacancies occurring between a general election and the meeting of Parliament for the despatch of business, are issued by the Governor. For all other elections the writs are issued by the Speaker, unless absent from the Colony, or unless no Speaker has yet been elected, when the Governor signs these writs in like manner to the others.

Election is by ballot.

Election is by ballot, the names of those entitled to vote being compiled twice a year and published for general information.

Meeting of first Parliament.

The first Parliament elected under the Constitution Act, met on the 22nd May, 1856, just six months after the proclamation of the Constitution. The sittings, unless Parliament should be previously prorogued, were originally fixed at five years, but in 1874, an Act was passed establishing triennial Parliaments, which has ever since remained law. Since the inauguration of Responsible Government, there have been thirteen appeals to the people, so that it will be seen the duration of each Assembly has not averaged even the shorter period of life to which its existence is now limited.

The subjoined table gives the duration of each Parliament elected under Constitutional Government.

No. 327.—Duration of Parliaments since the Establishment of Responsible Government:—

| Parliament. | Opened. | Dissolved. | Duration. | | | No. of Sessions. |
|---|---|---|---|---|---|---|
| | | | Yr. | mth. | dy. | |
| First ......... | 22 May, 1856 ... | 19 Dec., 1857 ... | 1 | 6 | 27 | 2 |
| Second ...... | 23 March, 1858 ... | 11 April, 1859 ... | 1 | 0 | 19 | 2 |
| Third ...... | 30 Aug., 1859 ... | 10 Nov., 1860 ... | 1 | 2 | 11 | 2 |
| Fourth ...... | 10 Jan., 1861 ... | 10 Nov., 1864 ... | 3 | 10 | 0 | 5 |
| Fifth ......... | 26 Jan., 1865 ... | 15 Nov., 1869 ... | 4 | 9 | 22 | 6 |
| Sixth ......... | 27 Jan., 1870 ... | 3 Feb., 1872 ... | 2 | 0 | 7 | 3 |
| Seventh ...... | 30 April, 1872 ... | 28 Nov., 1874 ... | 2 | 6 | 29 | 4 |
| Eighth ...... | 27 Jan., 1875 ... | 12 Oct., 1877 ... | 2 | 8 | 15 | 3 |
| Ninth ...... | 27 Nov., 1877 ... | 9 Nov., 1880 ... | 2 | 11 | 13 | 3 |
| Tenth......... | 15 Dec., 1880 ... | 23 Nov., 1882 ... | 1 | 11 | 8 | 3 |
| Eleventh ... | 3 Jan., 1883 ... | 7 Oct., 1885 ... | 2 | 9 | 4 | 6 |
| Twelfth ...... | 17 Nov., 1885 ... | 26 Jan., 1887 ... | 1 | 2 | 9 | 2 |
| | | Average ........ | 2 | 4 | 18 | 3 to 4 |

Interest displayed in elections.

The amount of interest displayed by the electors in the exercise of their franchise is very considerable, though the proportion of votes recorded may not appear to sustain this view. At the general election of 1887 the total votes on the electoral rolls was 256,406, or 10 voters to every 39 persons in the community. In fourteen electorates, with 30,178 electors, returning seventeen members, there were no contests. The remaining 58 electorates, returning 107 members, comprised 226,228 electors, and of these only 131,062, or 57·9 per cent., recorded their votes.

Large area of electorates.

Owing to the vast extent of some of the electoral districts, many electors can only record their votes at considerable inconvenience to themselves, and to this cause, combined with the fact that the number of non-resident voters is very considerable, must be assigned the apparently low per-centage of votes recorded.

The number of males of full age, compared with the total population, is very large, the proportion at the last census being 28·18 per cent. The number of persons entitled to vote under the system of universal suffrage which prevails amounts to an average of 26·06 per cent. of the total population. The average number of electors per member at the close of 1886 was 2,106, and the estimated population to each member was 8,080.

The subjoined table gives the result of all the general elections which have taken place under Representative Government :—

No. 328.—Parliamentary Elections.

| Date of the issue of Writs. | No. of Parliament. | Voters on Roll. | Total number returned. | Members unopposed. | Votes on Roll in the Electorates where the contests took place. | Votes recorded. | Per-centage Votes recorded. | Informal Votes. | Per-centage Informal Votes. |
|---|---|---|---|---|---|---|---|---|---|
| 22 May, 1856 | First | 44,526 | 54 | * | * | * | * | * | * |
| 23 March, 1858 | Second | 72,176 | 72 | 14 | 60,400 | 30,370 | 50·83 | * | * |
| 30 August, 1859 | Third | 88,345 | 72 | 19 | 64,247 | 28,205 | 43·90 | * | * |
| 10 January, 1861 | Fourth | 106,189 | 72 | 19 | 75,676 | 28,340 | 37·45 | 29 | ·10 |
| 24 „ 1865 | Fifth | 119,872 | 72 | 15 | 90,729 | 44,311 | 48·84 | 31 | ·07 |
| 27 „ 1870 | Sixth | 135,506 | 72 | 11 | 108,080 | 56,299 | 52·09 | 102 | ·18 |
| 30 April, 1872 | Seventh | 151,798 | 72 | 8 | 135,432 | 60,004 | 44·30 | 80 | ·13 |
| 27 January, 1875 | Eighth | 160,843 | 72 | 10 | 132,710 | 59,877 | 45·12 | 234 | ·56 |
| 27 November, 1877 | Ninth | 160,945 | 73 | 16 | 130,718 | 63,018 | 48·20 | * | * |
| 18 December, 1880 | Tenth | 188,500 | 108 | 14 | 165,435 | 78,772 | 47·62 | 1,836 | 2·33 |
| 3 January, 1883 | Eleventh | 196,289 | 113 | 17 | 172,011 | 83,740 | 48·68 | 1,937 | 2·31 |
| 17 November, 1885 | Twelfth | 232,190 | 122 | 7 | 216,746 | 110,814 | 51·13 | 2,527 | 2·28 |
| 27 January, 1887 | Thirteenth. | 256,406 | 124 | 17 | 226,228 | 131,062 | 57·93 | 2,275 | 1·73 |

* Unrecorded.

# APPENDIX.

# AUSTRALASIAN STATISTICS,

## 1886-87.

# AUSTRALASIAN STATISTICS.

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## No. I.—Area and Population, 1886.

| Colony. | Area in Square miles. | On December 31st, 1886. | | | | | Total population on 31st December, 1885. | Increase or decrease in 1886. | |
|---|---|---|---|---|---|---|---|---|---|
| | | Estimated population. | | | Number of females to 100 males. | Number of persons to the square mile. | | Numerical. | Per cent. |
| | | Males. | Females. | Total. | | | | | |
| New South Wales ... | 310,700 | 551,343 | 450,623 | 1,001,966* | 81·73 | 3·225 | 957,914 | + 44,052 | + 4·60 |
| Victoria ... ... | 87,884 | 531,452 | 471,591 | 1,003,043* | 88·74 | 11·413 | 971,145 | + 31,898 | + 3·28 |
| Queensland ... ... | 668,224 | 201,024 | 141,590 | 342,614 | 70·43 | ·513 | 326,916 | + 15,698 | + 4·80 |
| South Australia ... | 903,425 | 162,980 | 149,778 | 312,758 | 91·90 | ·346 | 313,423 | — 665 | — 0·21 |
| Western Australia ... | 975,920 | 23,044 | 16,540 | 39,584 | 71·78 | ·041 | 35,186 | + 4,398 | +12·50 |
| Tasmania ... ... | 26,375 | 73,323 | 63,888 | 137,211 | 87·13 | 5·202 | 133,791 | + 3,420 | + 2·55 |
| New Zealand ... ... | 104,235 | 317,646 | 271,740 | 589,386† | 85·55 | 5·654 | 575,226† | + 14,160 | + 2·40 |
| Total, Australasia ... | 3,076,763 | 1,860,812 | 1,565,750 | 3,426,562 | 84·14 | 1·114 | 3,313,601 | +112,961 | + 3·41 |

---

* In estimating the population of New South Wales and Victoria allowance has been made for unrecorded departures. On the 30th June, 1887, the population of New South Wales was 1,022,767, and that of Victoria, 1,019,106.

† Exclusive of Maoris, who at the Census of March, 1886, numbered 22,868 males, 18,960 females: 41,828 total.

## No. II.—Population, 1871, 1881, 1886.

| Colony. | 1871. | | | 1881. | | | 1886. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Males. | Females. | Total. | Males. | Females. | Total. | Males. | Females. | Total. |
| New South Wales ... | 275,551 | 228,430 | 503,981 | 411,149 | 340,319 | 751,468 | 551,343 | 450,623 | 1,001,966 |
| Victoria ... ... | 401,050 | 330,478 | 731,528 | 452,083 | 410,263 | 862,346 | 531,452 | 471,591 | 1,003,043 |
| Queensland ... ... | 71,767 | 48,337 | 120,104 | 125,325 | 88,200 | 213,525 | 201,024 | 141,590 | 342,614 |
| South Australia ... | 95,408 | 90,218 | 185,626 | 149,530 | 130,335 | *279,865 | 162,980 | 149,778 | 312,758 |
| Western Australia ... | 15,565 | 9,788 | 25,353 | 17,062 | 12,646 | 29,708 | 23,044 | 16,540 | 39,584 |
| Tasmania ... ... | 53,911 | 47,874 | 101,785 | 61,162 | 54,543 | 115,705 | 73,323 | 63,888 | 137,211 |
| New Zealand ... ... | 150,356 | 106,037 | †256,393 | 269,605 | 220,328 | †489,933 | 317,646 | 271,740 | †589,386 |
| Total, Australasia... | 1,063,608 | 861,162 | 1,924,770 | 1,485,916 | 1,256,634 | 2,742,550 | 1,860,812 | 1,565,750 | 3,426,562 |

* Exclusive of aborigines. † Exclusive of Maoris, estimated at 37,502 in 1871, and 44,007 in 1881, and who, at the census of March, 1886, numbered 22,868 males, 18,960 females: 41,828 total. The population for 1871 and 1881 is from the census; that for 1886 is the estimate for the close of the year.

## No. III.—Births, Deaths, Marriages, 1886.

| Colony. | Births. | | Deaths. | | Marriages. | | Excess of Births over Deaths. | |
|---|---|---|---|---|---|---|---|---|
| | No. | Per 1,000 of Population. | No. | Per 1,000 of Population. | No. | Per 1,000 of Population. | No. | Per cent. |
| N. S. Wales ... | 36,284 | 37·03 | 14,587 | 14·88 | 7,811 | 7·99 | 21,697 | 148·74 |
| Victoria ... | 30,824 | 31·24 | 14,952 | 15·15 | 7,737 | 7·84 | 15,872 | 106·15 |
| Queensland ... | 12,582 | 37·58 | 5,575 | 16·65 | 2,785 | 8·32 | 7,007 | 125·69 |
| S. Australia ... | 11,177 | 35·69 | 4,234 | 13·52 | 1,976 | 6·31 | 6,943 | 163·98 |
| W. Australia ... | 1,466 | 39·31 | 806 | 21·56 | 297 | 7·94 | 660 | 81·89 |
| Tasmania ... | 4,627 | 34·14 | 1,976 | 14·58 | 985 | 7·27 | 2,651 | 134·16 |
| New Zealand .. | 19,299 | 33·14 | 6,135 | 10·53 | 3,508 | 6·02 | 13,164 | 214·57 |
| Total, Australasia | 116,259 | 34·52 | 48,265 | 14·32 | 25,099 | 7·45 | 67,994 | 140·88 |

## No. IV.—Immigration and Emigration by Sea, 1884–86.

| Colony. | 1884. | | | 1885. | | | 1886. | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of Immigrants. | No. of Emigrants. | Excess of Immigrants. | No. of Immigrants. | No. of Emigrants. | Excess of Immigrants. | No. of Immigrants. | No. of Emigrants. | Excess of Immigrants. |
| New South Wales ... | 72,486 | 40,254 | 32,232 | 78,138 | 38,445 | 39,683 | 70,388 | 41,896 | 28,492 |
| Victoria ... ... | 72,202 | 58,061 | 14,141 | 76,976 | 61,994 | 14,982 | 93,404 | 68,102 | 25,302 |
| Queensland ... ... | 36,883 | 18,263 | 18,620 | 34,334 | 22,768 | 11,566 | 34,101 | 20,911 | 13,190 |
| South Australia ... | 17,290 | 16,082 | 1,208 | 14,500 | 21,917 | (—)7,417 | 17,623 | 25,231 | (—) 7,608 |
| Western Australia ... | 2,434 | 1,563 | 871 | 3,047 | 1,419 | 1,628 | 5,615 | 1,877 | 3,738 |
| Tasmania ... ... | 14,257 | 12,524 | 1,733 | 14,822 | 14,173 | 649 | 15,399 | 14,630 | 769 |
| New Zealand ... ... | 20,021 | 10,700 | 9,321 | 16,199 | 11,695 | 4,504 | 16,101 | 15,037 | 1,064 |
| Total, Australasia ... | 235,573 | 157,447 | 78,126 | 238,016 | 172,421 | 65,595 | 252,631 | 187,684 | 64,917 |

The immigration and emigration in this table is by sea only; in South Australia, however, an estimate of the overland migration has been made. It is probable that all the emigration figures are too low, as it has been ascertained that the departure of many persons by sea is not recorded. Minus sign (—) denotes excess of emigration.

## No. V.—Live Stock, 1886-7.

| Colony. | Sheep. | | Horned Cattle. | | Horses. | | Pigs. | | Total Stock. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number. | Percentage in each Colony. | Number. | Percentage in each Colony. | Number. | Percentage in each Colony. | Number. | Percentage in each Colony. | Number. | Percentage in each Colony. |
| New South Wales ... | 39,169,304 | 45·36 | 1,367,844 | 16·55 | 361,663 | 26·35 | 209,576 | 18·32 | 41,108,387 | 42·32 |
| Victoria ... ... | 10,700,403 | 12·39 | 1,303,265 | 15·77 | 308,553 | 22·48 | 240,957 | 21·06 | 12,553,178 | 12·92 |
| Queensland ... ... | 9,690,445 | 11·22 | 4,071,563 | 49·26 | 278,694 | 20·30 | 61,861 | 5·41 | 14,102,563 | 14·52 |
| South Australia ... | 6,696,406 | 7·76 | 389,726 | 4·72 | 168,420 | 12·27 | 163,807 | 14·32 | 7,418,359 | 7·64 |
| Western Australia ... | 1,809,071 | 2·10 | 88,254 | 1·07 | 38,360 | 2·79 | 24,655 | 2·16 | 1,960,340 | 2·02 |
| Tasmania ... ... | 1,608,946 | 1·86 | 148,665 | 1·80 | 29,684 | 2·16 | 73,118 | 6·39 | 1,860,413 | 1·92 |
| New Zealand ... ... | 16,677,445 | 19·31 | 895,461 | 10·83 | 187,382 | 13·65 | 369,992 | 32·34 | 18,130,280 | 18·66 |
| Total, Australasian Colonies ... | 86,352,020 | 100·00 | 8,264,778 | 100·00 | 1,372,756 | 100·00 | 1,143,966 | 100·00 | 97,133,520 | 100·00 |

Returns of Live Stock are collected in most of the Colonies in February and March, and the figures given above are for those months in 1887. The figures for South Australia are for 1885, as no Returns have since been collected in that Colony.

## No. VI.—Live Stock in the Austral

| Colony. | 1871. | | | | | 1881. | | |
|---|---|---|---|---|---|---|---|---|
| | Sheep. | Cattle. | Horses. | Pigs. | Total. | Sheep. | Cattle. | Horses. |
| New South Wales | 16,278,697 | 2,014,888 | 304,100 | 213,193 | 18,810,878 | 36,591,946 | 2,597,348 | 398,577 |
| Victoria .. .. | 10,002,381 | 799,509 | 181,643 | 177,447 | 11,160,980 | 10,267,265 | 1,286,677 | 278,195 |
| Queensland .. | 7,403,334 | 1,168,235 | 91,910 | 32,707 | 8,696,186 | 8,292,883 | 3,618,513 | 194,217 |
| South Australia .. | 4,412,055 | 143,463 | 78,125 | 95,542 | 4,729,185 | 6,810,856 | 314,918 | 159,678 |
| Western Australia | 670,999 | 49,593 | 22,698 | 14,265 | 757,555 | 1,267,912 | 63,009 | 31,755 |
| Tasmania .. .. | 1,305,489 | 101,540 | 23,054 | 52,863 | 1,482,946 | 1,847,479 | 130,526 | 27,805 |
| New Zealand .. | 9,700,629 | 436,592 | 81,028 | 151,460 | 10,369,709 | 12,985,085 | 698,637 | 161,736 |
| Total, Australasia | 49,773,584 | 4,713,820 | 782,558 | 737,477 | 56,007,439 | 78,063,426 | 8,709,628 | 1,251,963 |

* Information not collected for 1886 or 1887. The figures inserted are those

## No. VII.—Agriculture.—1886-7.—Area under,

| Colony. | Grain Crops. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Wheat. | | Maize. | | Oats. | | Barley. | |
| | Area. | Produce. | Area. | Produce. | Area. | Produce. | Area. | Produce |
| | acres. | bushels. | acres. | bushels. | acres. | bushels. | acres. | bushels |
| New South Wales | 337,730 | 5,868,844 | 146,957 | 3,825,146 | 23,947 | 600,892 | 6,079 | 132,949 |
| Victoria | 1,052,685 | 12,100,036 | 4,901 | 231,447 | 185,765 | 4,256,079 | 37,031 | 827,832 |
| Queensland | 6,787 | 21,221 | 75,566† | 1,709,673 | 138 | 1,438 | 768 | 18,483 |
| South Australia | 1,942,453 | ¶ | ..... | ...... | 7,264 | ¶ | 15,697 | ¶ |
| Western Australia | 24,043 | 288,516 | 171 | 2,137 | 1,766 | 28,512 | 5,185 | 82,516 |
| Tasmania | 35,322 | 632,573 | .... | ...... | 21,607 | 560,622 | 2,749 | 61,365 |
| New Zealand | 253,025 | 6,297,638 | 4,720 | ...... | 387,228 | 11,973,295 | 21,535 | 558,666‡ |

Statistics of Agriculture are collected in the various Colonies in the months

* Also 1,945 tons of grapes for table use. † Unproductive cane included. ‡ Not collected in South Australia in 1886 and 1887.

## asian Colonies, 1871, 1881, 1886.

| 1881. | | 1886.† | | | | | Colony. |
|---|---|---|---|---|---|---|---|
| Pigs. | Total. | Sheep. | Cattle. | Horses. | Pigs. | Total. | |
| 213,916 | 39,801,757 | 39,169,304 | 1,367,844 | 361,663 | 209,576 | 41,108,387 | New South Wales. |
| 239,926 | 12,072,063 | 10,700,403 | 1,303,265 | 308,553 | 240,957 | 12,553,178 | Victoria. |
| 56,438 | 12,162,051 | 9,690,445 | 4,071,563 | 278,694 | 61,861 | 14,102,563 | Queensland. |
| 120,748 | 7,406,170 | *6,696,406 | *389,726 | *168,420 | *163,807 | *7,418,359 | South Australia. |
| 22,530 | 1,385,206 | 1,809,071 | 88,254 | 38,300 | 24,655 | 1,960,340 | Western Australia. |
| 49,660 | 2,055,470 | 1,608,946 | 148,665 | 29,684 | 73,118 | 1,860,413 | Tasmania. |
| 200,083 | 14,045,541 | 16,677,445 | 895,461 | 187,382 | 369,992 | 18,130,280 | New Zealand. |
| 903,271 | 88,928,288 | 86,352,020 | 8,264,778 | 1,372,756 | 1,143,966 | 97,133,520 | Total, Australasia. |

for the year ended March, 1885. † Year ended 31st March, 1887.

## and Produce of some of the Principal Crops.

| Hay. | | Potatoes. | | Grape-vines. | | Sugar-cane. | | Total Area under Crop (area under grass not included). | Colony. |
|---|---|---|---|---|---|---|---|---|---|
| Area. | Produce | Area. | Produce | Area. | Wine produced. | Area. | Sugar manufactured | | |
| acres. | tons. | acres. | tons. | acres. | gallons. | acres. | tons. | acres. | |
| 223,470 | 349,898 | 17,322 | 45,803 | 5,840 | *601,897 | †15,117 | 13,750 | †977,664 | New South Wale |
| 445,150 | 483,049 | 49,974 | 170,661 | 10,310 | ‡...... | .... | .... | 2,141,291 | Victoria. |
| 39,280 | 75,371 | 7,262 | 26,967 | 1,517 | ‖ 147,410 | 54,010 | 58,545 | 221,843 | Queensland. |
| 308,429 | ¶ | 5,666 | ¶ | 4,590 | ¶ | .... | .... | 2,762,273 | South Australia. |
| 25,718 | 25,718 | 356 | 1,071 | 649 | ...... | .... | .... | 84,403 | Western Australia. |
| 47,269 | 50,158 | 16,084 | 75,773 | .... | ...... | .... | .... | 152,388 | Tasmania. |
| 57,938 | 79,013 | 27,683 | 134,965 | .... | ...... | .... | .... | 1,372,219 | New Zealand. |

of February and March. The figures given are for those months of 1887.

returned. ‖ Also 655 tons of grapes for table use. ¶ No agricultural statistics were

The areas given are for the year ended March, 1885.

## No. X.—Total Trade—Imports and Exports, 1886.

| Colony. | Imports. | Exports. | | | Total Trade. | Per head of Population. | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Home Produce. | Re-exports. | Total Exports. | | Imports. | Export of Home Produce. | Total Exports. | Total Trade. |
| ... | £ | £ | £ | £ | £ | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| New South Wales.. | 20,973,548 | 12,884,200 | 2,672,013 | 15,556,213 | 36,529,761 | 21 8 1 | 13 2 11 | 15 17 6 | 37 5 7 |
| Victoria ... ... | 18,530,575 | 9,054,687 | 2,740,634 | 11,795,321 | 30,325,896 | 18 15 5 | 9 3 5 | 11 19 0 | 30 14 5 |
| Queensland ... | 6,103,227 | 4,813,092 | 120,878 | 4,933,970 | 11,037,197 | 18 4 7 | 14 7 7 | 14 14 9 | 32 19 4 |
| South Australia ... | 4,852,750 | 2,822,138 | 1,666,870 | 4,489,008 | 9,341,758 | 15 10 0 | 9 0 3 | 14 6 9 | 29 16 9 |
| Western Australia | 758,013 | 626,524 | 3,869 | 630,393 | 1,388,406 | 20 5 7 | 16 14 8 | 16 17 2 | 37 2 9 |
| Tasmania... ... | 1,756,567 | 1,312,416 | 19,124 | 1,331,540 | 3,088,107 | 12 19 3 | 9 13 9 | 9 17 6 | 22 16 9 |
| New Zealand ... | 6,759,013 | 6,386,682 | 286,109 | 6,672,791 | 13,431,804 | 11 12 2 | 10 19 4 | 11 9 2 | 23 1 4 |
| Total, Australasia.. | 59,733,693 | 37,899,739 | 7,509,497 | 45,409,236 | 105,142,929 | 17 14 5 | 11 4 11 | 13 9 6 | 31 3 11 |

## No. XI.—Number and Tonnage of Vessels—Inwards and Outwards.

| Colony. | Inwards. | | Outwards. | | Total Shipping. | |
|---|---|---|---|---|---|---|
| | Number. | Tonnage. | Number. | Tonnage. | Number. | Tonnage. |
| New South Wales ... ... .. ... | 2,684 | 2,114,618 | 2,755 | 2,143,986 | 5,439 | 4,258,604 |
| Victoria ... ... ... ... ... | 2,307 | 1,848,058 | 2,324 | 1,887,329 | 4,631 | 3,735,387 |
| Queensland ... ... ... ... ... | 918 | 557,026 | 977 | 563,453 | 1,895 | 1,120,479 |
| South Australia ... ... ... ... | 859 | 770,922 | 878 | 787,554 | 1,737 | 1,558,476 |
| Western Australia ... ... ... ... | 287 | 260,286 | 255 | 237,222 | 542 | 497,508 |
| Tasmania ... ... ... ... ... | 690 | 343,656 | 715 | 348,773 | 1,405 | 692,429 |
| New Zealand ... ... ... ... ... | 725 | 502,572 | 707 | 488,331 | 1,432 | 990,903 |
| Total, Australasia ... ... ... | 8,470 | 6,397,138 | 8,611 | 6,456,648 | 17,081 | 12,853,786 |

## No. XII.—Total Tonnage of Vessels entered and cleared, 1877–86.

| Colonies. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. | Tons. |
| New South Wales ... | 2,237,981 | 2,459,504 | 2,540,724 | 2,432,779 | 2,786,500 | 3,296,665 | 4,006,237 | 4,660,958 | 4,133,077 | 4,258,604 |
| Victoria ... ... | 1,874,985 | 1,913,427 | 1,940,222 | 2,179,899 | 2,411,902 | 2,690,884 | 2,964,331 | 3,151,587 | 3,260,158 | 3,735,387 |
| Queensland... ... | 956,844 | 1,066,758 | 1,256,394 | 1,255,576 | 1,533,808 | 1,880,591 | 882,491 | 1,152,112 | 1,029,181 | 1,120,479 |
| *South Australia ... | 672,776 | 906,273 | 932,891 | 1,200,904 | 1,269,491 | 1,337,218 | 1,504,765 | 1,834,532 | 1,807,042 | 1,558,476 |
| Western Australia... | 151,133 | 162,753 | 170,037 | 250,429 | 285,046 | 344,247 | 389,102 | 442,886 | 468,035 | 497,508 |
| Tasmania ... ... | 319,517 | 315,854 | 381,895 | 413,303 | 383,762 | 417,418 | 471,122 | 614,198 | 667,806 | 692,429 |
| New Zealand ... | 789,177 | 884,983 | 919,692 | 819,716 | 833,621 | 899,836 | 1,002,491 | 1,063,430 | 1,032,700 | 990,903 |
| Total, Australasia ... | 7,002,413 | 7,709,552 | 8,171,855 | 8,552,606 | 9,504,130 | 10,866,859 | 11,220,539 | 12,919,703 | 12,397,999 | 12,853,786 |

* Including River Murray trade.

## No. XIII.—Public Revenue, 1886.

| Colony. | Revenue derived from— | | | | | Revenue per Head derived from— | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Taxation. | Land. | Public Services—Railways, Post Office, Telegraphs. | Other Sources. | Total. | Taxation. | Land. | Public Services—Railways, &c. | Other Sources. | Total. |
| | £ | £ | £ | £ | £ | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| New South Wales ... | 2,611,835 | 1,643,955 | 3,089,235 | 249,276 | 7,594,301 | 2 13 4 | 1 13 7 | 3 3 0 | 0 5 1 | 7 15 0 |
| Victoria ... ... | 2,634,560 | 563,608 | 2,895,154 | 387,699 | 6,481,021 | 2 13 4 | 0 11 5 | 2 18 8 | 0 7 10 | 6 11 3 |
| Queensland... ... | 1,196,651 | 597,107 | 867,654 | 148,735 | 2,810,147 | 3 11 6 | 1 15 8 | 2 11 10 | 0 8 10 | 8 7 10 |
| South Australia ... | 585,123 | 227,146 | 736,373 | 426,627 | 1,975,269 | 1 17 4 | 0 14 6 | 2 7 0 | 1 7 3 | 6 6 1 |
| Western Australia... | 184,999 | 104,447 | 56,624 | 42,494 | 388,564 | 4 19 0 | 2 15 10 | 1 10 5 | 1 2 8 | 10 7 11 |
| Tasmania ... ... | 371,544 | 62,495 | 105,429 | 29,456 | 568,924 | 2 14 0 | 0 9 2 | 0 15 7 | 0 4 4 | 4 4 0 |
| New Zealand ... | 1,962,162 | 290,539 | 1,235,794 | 199,521 | 3,688,016 | 3 7 4 | 0 9 11 | 2 2 5 | 0 6 10 | 6 6 6 |
| Total, Australasia | 9,546,874 | 3,489,297 | 9,001,263 | 1,483,808 | 23,506,242 | 2 16 7 | 1 0 8 | 2 13 5 | 0 8 9 | 6 19 5 |

## No. XIV.—Public Revenue, 1877-86.

| Colony. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| New South Wales ... | 5,751,878 | 4,991,919 | 4,481,665 | 4,911,990 | 6,714,327 | 7,428,596 | 6,470,341 | 7,117,592 | 7,587,368 | 7,594,301 |
| *Victoria ... ... | 4,723,877 | 4,504,413 | 4,621,520 | 4,621,282 | 5,186,011 | 5,592,362 | 5,611,253 | 5,934,687 | 6,290,361 | 6,481,021 |
| Queensland ... ... | *1,436,582 | *1,559,111 | *1,461,824 | *1,612,314 | *2,023,668 | *2,102,095 | 2,583,444 | 2,673,554 | 2,840,960 | 2,810,147 |
| South Australia ... | 1,441,401 | 1,592,634 | 1,662,498 | 2,027,963 | 2,177,998 | 2,089,076 | 2,060,140 | 2,024,928 | 2,309,592 | 1,975,269 |
| Western Australia ... | 165,413 | 163,344 | 196,315 | 180,050 | 254,313 | 250,372 | 284,364 | 290,319 | 323,213 | 388,584 |
| Tasmania ... ... | 366,118 | 385,936 | 375,570 | 442,158 | 505,006 | 550,763 | 562,189 | 549,262 | 571,397 | 568,924 |
| New Zealand ... | 3,916,023 | 4,167,889 | 3,134,905 | 3,283,396 | 3,757,493 | 3,917,160 | 3,871,267 | 3,707,488 | 4,096,996 | 3,688,016 |
| Total, Australasia ... | 17,801,292 | 17,365,246 | 15,934,297 | 17,079,153 | 20,618,816 | 21,918,366 | 21,442,998 | 22,297,830 | 24,019,887 | 23,506,262 |

* For the year ended 30th June.

## No. XV.—Customs Revenue, 1877-86.

| Colony. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| New South Wales ... | 1,076,567 | 1,149,179 | 1,108,140 | 1,182,604 | 1,452,456 | 1,514,263 | 1,527,863 | 1,726,811 | 1,952,265 | 2,068,571 |
| *Victoria ... ... | 1,605,722 | 1,495,809 | 1,436,343 | 1,417,545 | 1,643,988 | 1,823,927 | 1,832,792 | 1,936,358 | 2,038,527 | 2,004,460 |
| Queensland ... ... | 533,394 | 571,731 | 511,132 | 483,753 | 528,795 | 639,007 | 753,703 | 866,475 | 990,057 | 965,754 |
| South Australia ... | 491,701 | 511,456 | 513,431 | 517,631 | 542,666 | 636,091 | 618,871 | 517,489 | 571,358 | 436,114 |
| Western Australia ... | 80,417 | 74,759 | 87,119 | 94,518 | 106,944 | 117,753 | 119,865 | 116,932 | 134,116 | 164,048 |
| Tasmania ... ... | 201,966 | 211,030 | 199,688 | 219,148 | 256,129 | 290,603 | *297,175 | *254,946 | *276,100 | *276,265 |
| New Zealand ... | 1,211,196 | 1,338,863 | 1,230,600 | 1,264,807 | 1,417,392 | 1,515,026 | 1,411,405 | 1,400,343 | 1,428,809 | 1,315,801 |
| Total, Australasia ... | 5,200,963 | 5,352,827 | 5,086,453 | 5,180,006 | 5,948,370 | 6,536,670 | 6,561,674 | 6,819,354 | 7,391,232 | 7,231,013 |

* Import and Export Duties.

## No. XVI.—Public Expenditure, 1886. (Exclusive of Expenditure from Loans.)

| Colony. | Total Expenditure. | | | | | Expenditure per Head. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Railways and Tramways. | Other Public Works, including Post and Telegraphs. | Interest on Debt. | Other Services. | Total. | Railways. | Other Public Works, including Post and Telegraphs. | Interest on Debt. | Other Services. | Total. |
| | £ | £ | £ | £ | £ | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| New South Wales ... | 1,710,495 | 1,859,528 | 1,519,437 | 3,989,407 | 9,078,869 | 1 14 11 | 1 17 11 | 1 11 0 | 4 1 5 | 9 5 3 |
| *Victoria ... ... | 1,412,540 | 1,286,956 | 1,282,010 | 2,532,034 | 6,513,540 | 1 8 7 | 1 6 1 | 1 6 0 | 2 11 4 | 6 12 0 |
| †Queensland ... ... | 476,966 | ‡490,434 | 811,565 | 1,423,065 | 3,202,030 | 1 8 5 | 1 9 3 | 2 8 5 | 4 5 2 | 9 11 3 |
| South Australia ... | 379,251 | 189,474 | 697,201 | 1,117,364 | 2,383,290 | 1 4 2 | 0 12 1 | 2 4 6 | 3 11 4 | 7 12 1 |
| Western Australia ... | §44,580 | 31,112 | 59,780 | 259,203 | 394,675 | 1 3 10 | 0 16 7 | 1 11 11 | 6 18 8 | 10 11 0 |
| Tasmania ... ... | 70,709 | 140,591 | 155,844 | 217,612 | 584,756 | 0 10 5 | 1 0 9 | 1 3 0 | 1 12 1 | 4 6 3 |
| New Zealand... ... | 692,039 | 314,007 | 1,753,243 | 1,551,586 | 4,310,875 | 1 3 9 | 0 10 9 | 3 0 2 | 2 13 4 | 7 8 0 |
| Total, Australasia ... | 4,786,580 | 4,312,102 | 6,279,080 | 11,090,271 | 26,468,035 | 1 8 5 | 1 5 7 | 1 17 3 | 3 5 10 | 7 17 1 |

* For year ended 30th June. For year ended 30th June; includes expenditure from 1st July to 30th September on account of 1886.
‡ Approximate. Includes Public Works.

## No. XVII.—Public Expenditure, 1877-86.

| Colony. | 1877. | 1878. | 1879 | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| New South Wales ... | 4,501,210 | 5,078,381 | 5,745,509 | 5,502,760 | 5,788,942 | 6,355,610 | 7,791,088 | 8,414 360 | 8,566,488 | 9,078,869 |
| *Victoria ... ... | 4,358,096 | 4,634,349 | 4,833,379 | 4,875,029 | 5,108,642 | 5,145,764 | 5,651,885 | 5,715,293 | 6,140,356 | 6,513,540 |
| Queensland ... ... | 1,382,806 | 1,543,820 | 1,678,631 | 1,673,695 | 1,757,654 | 1,904,201 | 2,242,971 | 2,751,851 | 2,875,609 | 3,202,030 |
| South Australia ... | 1,443,653 | 1,620,310 | 1,847,256 | 1,923,605 | 2,054,285 | 2,146,599 | 2,330,079 | 2,398,191 | 2,454,808 | 2,383,290 |
| Western Australia ... | 182,959 | 198,243 | 195,812 | 204,338 | 197,386 | 205,451 | 240,566 | 291,307 | 308,849 | 394,675 |
| Tasmania ... ... | 352,461 | 379,232 | 481,216 | 415,196 | 463,684 | 500,801 | 533,036 | 584,047 | 585,767 | 584,756 |
| New Zealand ... | *3,822,426 | *4,365,275 | *3,845,036 | *4,019,850 | *3,675,797 | *3,824,735 | 3,924,005 | 4,101,318 | 4,282,901 | 4,310,875 |
| Total, Australasia... | 16,043,611 | 17,819,610 | 18,526,839 | 18,614,473 | 19,046,390 | 20,083,161 | 22,713,630 | 24,256,367 | 25,214,778 | 26,468,035 |

* For year ended 30th June.

## No. XVI.—Public Expenditure, 1886. (Exclusive of Expenditure from Loans.)

| Colony. | Total Expenditure. | | | | | Expenditure per Head. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Railways and Tramways. | Other Public Works, including Post and Telegraphs. | Interest on Debt. | Other Services. | Total. | Railways. | Other Public Works, including Post and Telegraphs. | Interest on Debt. | Other Services. | Total. |
| | £ | £ | £ | £ | £ | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| New South Wales ... | 1,710,495 | 1,859,528 | 1,519,437 | 3,989,407 | 9,078,869 | 1 14 11 | 1 17 11 | 1 11 0 | 4 1 5 | 9 5 3 |
| *Victoria ... ... | 1,412,540 | 1,286,956 | 1,282,010 | 2,532,034 | 6,513,540 | 1 8 7 | 1 6 1 | 1 6 0 | 2 11 4 | 6 12 0 |
| †Queensland ... ... | 476,966 | ‡490,434 | 811,565 | 1,423,065 | 3,202,030 | 1 8 5 | 1 9 3 | 2 8 5 | 4 5 2 | 9 11 3 |
| South Australia ... | 379,251 | 189,474 | 697,201 | 1,117,364 | 2,383,290 | 1 4 2 | 0 12 1 | 2 4 6 | 3 11 4 | 7 12 1 |
| Western Australia ... | §44,580 | 31,112 | 59,780 | 259,203 | 394,675 | 1 3 10 | 0 16 7 | 1 11 11 | 6 18 8 | 10 11 0 |
| Tasmania ... ... | 70,709 | 140,591 | 155,844 | 217,612 | 584,756 | 0 10 5 | 1 0 9 | 1 3 0 | 1 12 1 | 4 6 3 |
| New Zealand... ... | 692,039 | 314,007 | 1,753,243 | 1,551,586 | 4,310,875 | 1 3 9 | 0 10 9 | 3 0 2 | 2 13 4 | 7 8 0 |
| Total, Australasia ... | 4,786,580 | 4,312,102 | 6,279,080 | 11,090,271 | 26,468,035 | 1 8 5 | 1 5 7 | 1 17 3 | 3 5 10 | 7 17 1 |

* For year ended 30th June. For year ended 30th June; includes expenditure from 1st July to 30th September on account of 1886.
‡ Approximate. Includes Public Works.

## No. XVII.—Public Expenditure, 1877-86.

| Colony. | 1877. | 1878. | 1879 | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| New South Wales ... | 4,501,210 | 5,078,381 | 5.745.509 | 5,502,760 | 5,788,942 | 6,355,610 | 7,791,088 | 8,414 360 | 8,566,488 | 9,078,869 |
| *Victoria ... ... | 4,358,096 | 4,634,349 | 4,833,379 | 4,875,029 | 5,108,642 | 5,145,764 | 5,651,885 | 5,715,293 | 6,140,356 | 6,513,540 |
| Queensland ... ... | 1,382,806 | 1,543,820 | 1,678,631 | 1,673,695 | 1,757,654 | 1,904,201 | 2,242,971 | 2,751,851 | 2,875,609 | 3,202,030 |
| South Australia ... | 1,443,653 | 1,620,310 | 1,847,256 | 1,923,605 | 2,054,285 | 2,146,599 | 2,330,079 | 2,398,191 | 2,454,808 | 2,383,290 |
| Western Australia ... | 182,959 | 198,243 | 195,812 | 204,338 | 197,386 | 205,451 | 240,566 | 291,307 | 308,849 | 394,675 |
| Tasmania ... ... | 352,461 | 379,232 | 481,216 | 415,196 | 463,684 | 500,801 | 533,036 | 584,047 | 585,767 | 584,756 |
| New Zealand ... | *3,822,426 | *4,365,275 | *3,845,036 | *4,019,850 | *3,675,797 | *3,824,735 | 3,924,005 | 4,101,318 | 4,282,901 | 4,310,875 |
| Total, Australasia... | 16,043,611 | 17,819,610 | 18,526,839 | 18,614,473 | 19,046,390 | 20,083,161 | 22,713,630 | 24,256,367 | 25,214,778 | 26,468,035 |

* For year ended 30th June.

## No. XVIII.—Public Debt, 1877–1886.

| Colony. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. |
|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| New South Wales . . | 11,724,419 | 11,688,119 | 14,937,419 | 14,903,919 | 16,924,019 | 16,721,219 | 24,632,459 | 30,101,959 | 35,564,259 | 41,034,249 |
| *Victoria ... ... | 17,018,913 | 17,022,065 | 20,050,953 | 20,060,749 | 22,426,502 | 22,103,202 | 24,308,175 | 27,526,667 | 28,628,588 | 30,114,203 |
| Queensland ... ... | 7,685,350 | 8,935,350 | 10,192,150 | 12,192,150 | 13,245,150 | 13,125,350 | 14,907,850 | 16,419,850 | 19,320,850 | 20,820,850 |
| South Australia ... | 4,737,200 | 5,329,600 | 6,605,750 | 9,865,500 | 11,196,800 | 12,472,600 | 13,891,900 | 15,473,800 | 17,020,900 | 18,340,200 |
| Western Australia ... | 161,000 | 184,556 | 361,000 | 361,000 | 511,000 | 511,000 | 611,000 | 765,000 | 1,288,100 | 1,286,000 |
| Tasmania ... ... | 1,589,705 | 1,747,400 | 1,943,700 | 1,943,700 | 2,003,000 | 2,050,600 | 2,385 600 | 3,202,300 | 3,357,000 | 4,026,720 |
| †New Zealand ... | 20,691,111 | 22,608,311 | 28,583,231 | 28,583,231 | 29,659,111 | 30,235,711 | 31,385,411 | 32,860,982 | 35,790,422 | 37,587,776 |
| Total, Australasia ... | 63,607,698 | 67,515,401 | 87,910,249 | 87,910,249 | 95,965,582 | 97,219 682 | 112122395 | 126350558 | 140970119 | 153209998 |

---

* Amounts outstanding on 30th June of each year.

† Including debts of Provincial Governments.

## No. XIX.—Expenditure from Loans for Various Services to 31st December, 1886.

| Colony. | Railways. | Water Supply and Sewerage. | Immigration. | Other Services. | Total. | Proportion per head of the Mean Population. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Railways. | Water Supply. | Immigration. | Other Services. | Total. |
| | £ | £ | £ | £ | £ | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| New South Wales.. | 28,541,582 | 3,149,288 | 569,930 | 5,678,393 | 37,939,193* | 29 2 6 | 3 4 3 | 0 11 8 | 5 15 11 | 38 14 4 |
| Victoria ... ... | 23,079,747 | 4,327,930 | ...... | 2,706,526† | 30,114,203 | 23 7 8 | 4 7 8 | ...... | 2 14 10 | 30 10 2 |
| Queensland ... | 11,833,657 | 445,321 | 2,228,007 | 6,313,865 | 20,820,850 | 35 6 11 | 1 6 7 | 6 13 1 | 15 6 3 | 58 12 10 |
| South Australia ... | 10,348,732 | 1,337,334 | ...... | 6,654,134 | 18,340,200 | 33 1 1 | 4 5 5 | ...... | 21 5 1 | 58 11 6 |
| Western Australia. | 704,003 | ...... | ...... | 581,997 | 1,286,000 | 18 16 7 | ...... | ...... | 13 13 2 | 32 9 9 |
| Tasmania... ... | 1,702,228 | ...... | 232,814 | 2,091,678 | 4,026,720 | 12 11 3 | ...... | 1 14 4 | 15 8 9 | 29 14 4 |
| New Zealand .. | 14,082,710 | ...... | 2,077,421 | 21,427,645 | 37,587,776‡ | 24 3 8 | ...... | 3 11 4 | 36 16 0 | 64 11 0 |
| Total, Australasia.. | 90,292,659 | 9,259,873 | 5,108,172 | 45,454,238 | 150,114,942 | 26 15 10 | 2 14 11 | 1 10 4 | 13 9 9 | 44 10 10 |

* The total debt was £41,034,249, showing an unexpended balance of £3,095,056 at the close of the year 1886. † Including £1,055,557 for State Schools.
‡ On 31st March, 1887. Less Accrued Sinking Fund, £3,469,264.

## No. XX.—Liabilities and

| Colony. | 1881. | | 1882. | | 1883. | |
|---|---|---|---|---|---|---|
| | Liabilities. | Assets. | Liabilities. | Assets. | Liabilities. | Assets. |
| | £ | £ | £ | £ | £ | £ |
| *New South Wales .. .. | 22,394,316 | 27,870,488 | 25,089,892 | 31,714,134 | 26,154,500 | 33,382,652 |
| *Victoria .. .. .. .. | 22,902,017 | 27,173,809 | 25,496,305 | 31,248,586 | 25,856,769 | 31,742,807 |
| *Queensland .. .. .. | 5,448,047 | 7,056,182 | 6,660,572 | 9,133,089 | 7,494,705 | 10,310,640 |
| *South Australia .. .. | 5,555,598 | 8,414,743 | 5,776,666 | 10,812,496 | 5,306,594 | 11,868,024 |
| Western Australia .. .. | 364,584 | 556,613 | 484,347 | 715,343 | 604,463 | 872,389 |
| *Tasmania .. .. .. | 2,755,768 | 2,716,026 | 3,097,319 | 2,960,998 | 3,785,242 | 3,512,618 |
| †New Zealand .. .. .. | 10,068,189 | 14,863,645 | 10,015,274 | 17,162,235 | 9,706,700 | 17,794,761 |
| Total, Australasian Colonies | 69,508,514 | 88,651,501 | 76,560,375 | 108,775,768 | 78,868,973 | 109,498,531 |

* Average for last quarter of the year. † Average for the year.

## No. XXI.—Abstract of

| Colony. | Liabilities. | | | | | |
|---|---|---|---|---|---|---|
| | Notes in circulation. | Bills in circulation. | Balances due to other Banks. | Deposits. | Total Liabilities. | Coin. |
| | £ | £ | £ | £ | £ | £ |
| New South Wales ... ... | 1,595,301 | 63,407 | 1,298,926 | 28,428,253 | 31,385,887 | 4,018,973 |
| Victoria ... ... | 1,399,208 | 92,981 | 354,328 | 31,239,472 | 33,085,989 | 4,565,990 |
| Queensland ... ... | 643,663 | 22,986 | 51,737 | 7,170,781 | 7,889,167 | 1,509,654 |
| South Australia ... | 397,879 | 11,166 | 103,552 | 4,962,066 | 5,474,663 | 1,206,173 |
| Western Australia ... | 50,203 | 2,272 | 27,318 | 943,515 | 1,023,308 | 229,964 |
| Tasmania ... ... | 149,512 | 40,674 | 7,590 | 4,127,946 | 4,325,722 | * 578,255 |
| New Zealand ... ... | 943,075 | 50,396 | 30,011 | 10,579,712 | 11,603,194 | 2,053,816 |
| Total, Australasia ... | 5,178,841 | 283,882 | 1,873,462 | 87,451,745 | 94,787,930 | 14,162,825 |

* Includes Bullion.

## Assets of Banks, 1881-1886.

| 1884. | | 1885. | | 1886. | | Colony. |
|---|---|---|---|---|---|---|
| Liabilities. | Assets. | Liabilities. | Assets. | Liabilities. | Assets. | |
| £ | £ | £ | £ | £ | £ | |
| 28,851,230 | 36,835,195 | 29,687,296 | 38,143,433 | 31,385,887 | 41,122,097 | *New South Wales. |
| 30,186,336 | 36,018,866 | 32,517,640 | 39,174,120 | 33,085,989 | 41,170,989 | *Victoria. |
| 7,002,542 | 11,155,423 | 9,085,592 | 13,527,826 | 7,889,167 | 14,535,409 | *Queensland. |
| 5,553,160 | 11,546,827 | 6,504,793 | 12,380,722 | 5,474,663 | 11,446,883 | *South Australia. |
| 686,598 | 1,039,751 | 823,010 | 1,250,327 | 1,023,308 | 1,609,468 | Western Australia. |
| 4,208,863 | 3,986,376 | 3,814,632 | 3,754,226 | 4,325,722 | 4,239,884 | *Tasmania. |
| 10,691,599 | 18,442,139 | 11,130,244 | 18,811,566 | 11,603,194 | 19,041,827 | †New Zealand. |
| 87,840,337 | 119,024,577 | 93,563,207 | 127,042,220 | 94,787,930 | 133,166,557 | Total, Australasian Colonies. |

* Average for last quarter of the year. † Average for the year.

## Banking Statistics, 1886.

| Assets. | | | | | | Colony. |
|---|---|---|---|---|---|---|
| Bullion. | Landed Property. | Notes and Bills. | Balances due from other Banks. | Notes and Bills discounted and all other Debts due to the Banks. | Total Assets. | |
| £ | £ | £ | £ | £ | £ | |
| 79,694 | 1,139,980 | 116,631 | 2,396,795 | 33,370,024 | 41,122,097 | New South Wales. |
| 366,950 | 1,222,260 | 151,089 | 239,556 | 34,625,144 | 41,170,989 | Victoria. |
| 142,940 | 453,588 | 17,372 | 130,414 | 12,281,441 | 14,535,409 | Queensland. |
| 11,419 | 382,170 | 49,591 | 163,453 | 9,634,077 | 11,446,883 | South Australia. |
| 42 | 62,679 | 2,467 | 5,120 | 1,309,196 | 1,609,468 | Western Australia. |
| ...... | 90,315 | ...... | 686,054 | 2,885,190 | 4,239,884 | Tasmania. |
| 123,728 | 495,592 | 36,026 | 56,184 | 16,276,481 | 19,041,827 | New Zealand. |
| 724,773 | 3,846,654 | 373,176 | 3,677,576 | 110,381,553 | 133,166,557 | Total, Australasia. |

* Includes Bullion

## No. XXII.—Government Savings Banks, 1886.

| Colony. | No. of Depositors. | Amount of Deposits. | Amount per Depositor. | Amount per Head of mean population. |
|---|---|---|---|---|
| | | £ | £ s. d. | £ s. d. |
| New South Wales ... ... ... ... | 111,944 | 3,504,804 | 31 6 2 | 3 11 6 |
| Victoria ... ... ... ... ... ... | 194,631 | 3,431,014 | 17 12 7 | 3 9 6 |
| Queensland ... ... ... ... ... | 37,559 | 1,337,965 | 35 12 5 | 3 19 11 |
| South Australia ... ... ... ... ... | *56,685 | 1,581,100 | 27 17 10 | 5 0 11 |
| Western Australia ... ... ... ... | 2,176 | 29,124 | 13 7 8 | 0 15 7 |
| Tasmania ... ... ... ... ... | 2,707 | 40,019 | 14 15 8 | 0 5 10 |
| New Zealand ... ... ... ... ... | 74,871 | 1,615,979 | 21 11 8 | 2 15 6 |
| Total, Australasian Colonies... ... | 480,573 | 11,540,005 | 24 0 3 | 3 8 6 |

---

* On 30 June, 1887.

### No. XXIII.—Length of Railways open for Traffic, 1877–1886, and under Construction in 1886.

| Colony. | 1877. | 1878. | 1879. | 1880. | 1881. | 1882. | 1883. | 1884. | 1885. | 1886. | Under Construction, 1886. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. | Miles. |
| New South Wales | 643 | 733 | 736 | 849 | 1,001 | 1,313 | 1,365 | 1,663 | 1,777 | 1,935 | 267 |
| Victoria ... ... | 950 | 1,052 | 1,125 | 1,199 | 1,247 | 1,355 | 1,562 | 1,663 | 1,680 | 1,753 | 316 |
| Queensland ... | 357 | 428 | 503 | 633 | 800 | 867 | 1,038 | 1,207 | 1,434 | 1,555 | 637 |
| South Australia... | 328 | 454 | 559 | 667 | 832 | 945 | 996 | 1,059 | 1,063 | 1,382 | 417 |
| Western Australia | 68 | 68 | 72 | 72 | 92 | 95 | 95 | 118 | 124 | 154 | 46 |
| Tasmania ... | 172 | 167 | 167 | 167 | 167 | 167 | 167 | 215 | 257 | 303 | 138 |
| New Zealand ... | 954 | 1,070 | 1,171 | 1,258 | 1,287 | 1,465 | 1,480 | 1,570 | 1,613 | 1,809 | 171 |
| Total, Australasia.. | 3,472 | 3,972 | 4,333 | 4,845 | 5,426 | 6,207 | 6,703 | 7,495 | 7,948 | 8,891 | 1,992 |

NOTE.—Private lines included.

## No. XXIV.—Post Offices and Telegraphs, 1886.

| Colony. | Post Offices. | | | Electric Telegraphs. | | |
|---|---|---|---|---|---|---|
| | No. of Offices. | No. of Letters received and despatched. | No. of Newspapers and Packets received and despatched. | No. of Stations. | Miles of Wire in operation. | No. of Telegrams received and despatched. |
| N. S. Wales ... | 1,157 | 42,849,900 | 34,381,200 | 425 | 20,797 | 2,661,126 |
| Victoria ... | 1,429 | 32,500,000 | 18,250,000 | 420 | 10,111 | 1,938,049 |
| Queensland ... | 662 | 10,503,345 | 9,391,614 | 282 | 14,443 | 1,201,495 |
| S. Australia ... | 568 | 13,129,921 | 6,672,013 | 200 | 10,310 | *............... |
| W. Australia ... | 80 | 1,847,694 | 1,300,708 | 38 | 2,658 | 315,197 |
| Tasmania ... | 251 | 4,109,230 | 3,806,738 | 144 | 2,353 | 214,738 |
| New Zealand ... | 1,089 | 39,518,479 | 17,791,706 | 375 | 11,178 | 1,836,266 |

* No return.

NOTE.—The figures respecting letters and newspapers are to be taken as approximate only.

## No. XXV.—Crown Lands Alienation.

| Colony. | Total Area. | Area unalienated at the close of 1886. | Area alienated at the close of 1886. | Area alienated in 1886. | Amount realized for Lands sold in 1886. |
|---|---|---|---|---|---|
| | Square Miles. | Acres. | Acres. | Acres. | £ |
| New South Wales ... | 310,700 | 157,562,536 | 41,285,464 | 1,242,598 | 512,284 |
| Victoria ... ... | 87,884 | 33,756,377 | 22,489,383 | 208,597 | *297,015 |
| Queensland ... ... | 668,224 | 419,208,327 | 8,455,033 | 726,465 | 379,262 |
| South Australia ... | 903,425 | 568,662,239 | 9,527,761 | 91,995 | 96,202 |
| Western Australia ... | 975,920 | 622,737,058 | 1,851,742 | 38,945 | 34,274 |
| Tasmania ... ... | 26,375 | 12,366,546 | 4,513,454 | 54,575 | 45,158 |
| New Zealand ... ... | 104,235 | 85,841,285 | 19,130,885 | 92,711 | 48,529 |
| Total, Australasia... | 3,076,763 | 1,900,134,368 | 107,253,722 | 2,453,886 | 1,412,724 |

* Amount payable; in the case of the other Colonies the amount actually received is entered.

## No. XXIV.—Post Offices and Telegraphs, 1886.

| Colony. | Post Offices. | | | Electric Telegraphs. | | |
|---|---|---|---|---|---|---|
| | No. of Offices. | No. of Letters received and despatched. | No. of Newspapers and Packets received and despatched. | No. of Stations. | Miles of Wire in operation. | No. of Telegrams received and despatched. |
| N. S. Wales ... | 1,157 | 42,849,900 | 34,381,200 | 425 | 20,797 | 2,661,126 |
| Victoria ... | 1,429 | 32,500,000 | 18,250,000 | 420 | 10,111 | 1,938,049 |
| Queensland ... | 662 | 10,503,345 | 9,391,614 | 282 | 14,443 | 1,201,495 |
| S. Australia ... | 568 | 13,129,921 | 6,672,013 | 200 | 10,310 | *............. |
| W. Australia ... | 80 | 1,847,694 | 1,300,708 | 38 | 2,658 | 315,197 |
| Tasmania ... | 251 | 4,109,230 | 3,806,738 | 144 | 2,353 | 214,738 |
| New Zealand ... | 1,089 | 39,518,479 | 17,791,706 | 375 | 11,178 | 1,836,266 |

* No return.

NOTE.—The figures respecting letters and newspapers are to be taken as approximate only.

## No. XXV.—Crown Lands Alienation.

| Colony. | Total Area. | Area unalienated at the close of 1886. | Area alienated at the close of 1886. | Area alienated in 1886. | Amount realized for Lands sold in 1886. |
|---|---|---|---|---|---|
| | Square Miles. | Acres. | Acres. | Acres. | £ |
| New South Wales ... | 310,700 | 157,562,536 | 41,285,464 | 1,242,598 | 512,284 |
| Victoria ... ... | 87,884 | 33,756,377 | 22,489,383 | 208,597 | *297,015 |
| Queensland ... ... | 668,224 | 419,208,327 | 8,455,033 | 726,465 | 379,262 |
| South Australia ... | 903,425 | 568,662,239 | 9,527,761 | 91,995 | 96,202 |
| Western Australia ... | 975,920 | 622,737,058 | 1,851,742 | 38,945 | 34,274 |
| Tasmania ... ... | 26,375 | 12,366,546 | 4,513,454 | 54,575 | 45,158 |
| New Zealand ... ... | 104,235 | 85,841,285 | 19,130,885 | 92,711 | 48,529 |
| Total, Australasia... | 3,076,763 | 1,900,134,368 | 107,253,722 | 2,455,886 | 1,412,724 |

* Amount payable; in the case of the other Colonies the amount actually received is entered.

## No. XXV.—Crown Lands Alienation.

| Colony. | Total Area. | Area unalienated at the close of 1886. | Area alienated at the close of 1886. | Area alienated in 1886. | Amount realized for Lands sold in 1886. |
|---|---|---|---|---|---|
| | Square Miles. | Acres. | Acres. | Acres. | £ |
| New South Wales ... | 310,700 | 157,562,536 | 41,285,464 | 1,242,598 | 512,284 |
| Victoria ... ... | 87,884 | 33,756,377 | 22,489,383 | 208,597 | *297,015 |
| Queensland ... ... | 668,224 | 419,208,327 | 8,455,033 | 726,465 | 379,262 |
| South Australia ... | 903,425 | 568,662,239 | 9,527,761 | 91,995 | 96,202 |
| Western Australia ... | 975,920 | 622,737,058 | 1,851,742 | 38,945 | 34,274 |
| Tasmania ... ... | 26,375 | 12,366,546 | 4,513,454 | 54,575 | 45,158 |
| New Zealand ... ... | 104,235 | 85,841,285 | 19,130,885 | 92,711 | 48,529 |
| Total, Australasia... | 3,076,763 | 1,900,134,368 | 107,253,722 | 2,455,886 | 1,412,724 |

* Amount payable; in the case of the other Colonies the amount actually received is entered.

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